MASS PROPERTY

Cariboo Lake, British Columbia

NTS: 93A/11W,14W

GEOLOGY, GEOCHEMISTRY, GEOPHYSICS AND TRENCHING, 1992

Claims: Mass 1 to 6; Sel 1 to 4; Lad 1, 2, 10 - 15
Cariboo Mining Division
52°44'N, 121°22'W

Owners: Formosa Resources Corporation
Annex Exploration Corp

Operator: Rio Algom Exploration Inc

W S Donaldson

October 1992

SUMMARY

During the summer of 1992, at a cost of $ 64,640, a programme of geological mapping, geophysical work, geochemical sampling and mechanical trenching was carried out over the Mass Property by Rio Algom Exploration Inc. The purpose of the program was to locate the source of the zinc, lead, silver and copper-bearing massive sulphide boulders found at the mouth of Frank Creek.

Geological mapping of the Palaeozoic Harveys Ridge succession identified most of the conductors detected in an airborne survey in 1991 as being due to graphitic schist. VLF-EM, GENIE HLEM and soil sampling surveys were conducted over the remaining four unexplained airborne conductors. The better targets were then mechanically trenched. All trenched conductors were found to be caused by of graphitic argillite and schist. It is concluded that the geochemical anomalies are due to either high background in the metasedimentary rocks, localized mineralized quartz veining, or faults and shears resulting in the remobilization of elements.

Massive sulphide mineralization of the type seen in the boulders and sought was not found through the work performed by Rio Algom Exploration Inc. The source therefore is up ice and off the property, or is very small and not detectable by the work done. It is recommended that the option be terminated.

TABLE OF CONTENTS

LIST OF MAPS

1 INTRODUCTION

1.1 General

This report describes the results of geological mapping, geophysical work, geochemical sampling and a mechanical trenching programme carried out by Rio Algom Exploration Inc during the 1992 field season on the Mass Property.

Rio Algom acquired an option on the Mass property from Formosa Resources Corporation and Annex Exploration Corp in the belief that the source of zinc, lead, silver and copper-bearing massive sulphide boulders, found at the mouth of Frank Creek, might lie somewhere on these claims.

The purpose of the 1992 work was to identify possible source areas of the massive sulphide boulders.

1.2 Location, Access and Physiography

The claims are situated on the south shore of Cariboo Lake, approximately 15 km northeast of the village of Likely, B.C. (Map 1). The claims are accessible by all weather logging roads from Likely. The 8400 Road, which begins just south of the Cariboo River, near the Weldwood logging camp, leads to spurs 8400C, 8400D and 8400E which give direct access to the property.

Elevations on the property range from 812 metres at Cariboo Lake to 1500 metres. The property is covered by a mixture of overgrown logging slash, fresh clearcuts and subeconomic timber. A tree farm licence covering the claims is held by Weldwood Canada.

1.3 Property and Claim Status

The Mass Property comprises the following claims:

Mass Option

Claim	Units	Record No.	Record Date
Mass 1	20	302116	May 17, 1991
Mass 2	20	205839	Sep 26, 1988
Mass 3	10	205840	Sep 27, 1988
Mass 4	12	205841	Sep 28, 1988
Mass 5	10	208563	Sep 29, 1988
Mass 6	12	305914	Oct 29, 1991
Sel 1	6	205618	Nov 18, 1987
Sel 2	18	205619	Nov 18, 1987
Sel 3	12	205620	Nov 18, 1987
Sel 4	12	205621	Nov 18, 1987

Lad 1	20	207367	Apr 13, 1991
Lad 2	18	207368	Apr 13, 1991
Lad 10	1	207376	Apr 11, 1991
Lad 11	1	207377	Apr 11, 1991
Lad 12	1	207378	Apr 11, 1991
Lad 13	1	207379	Apr 11, 1991
Lad 14	1	207380	Apr 11, 1991
Lad 15	1	207381	Apr 10, 1991

All claims are in good standing until 1995. The Mass 6 claim was staked by Rio Algom in 1991 and is not subject to the option agreement.

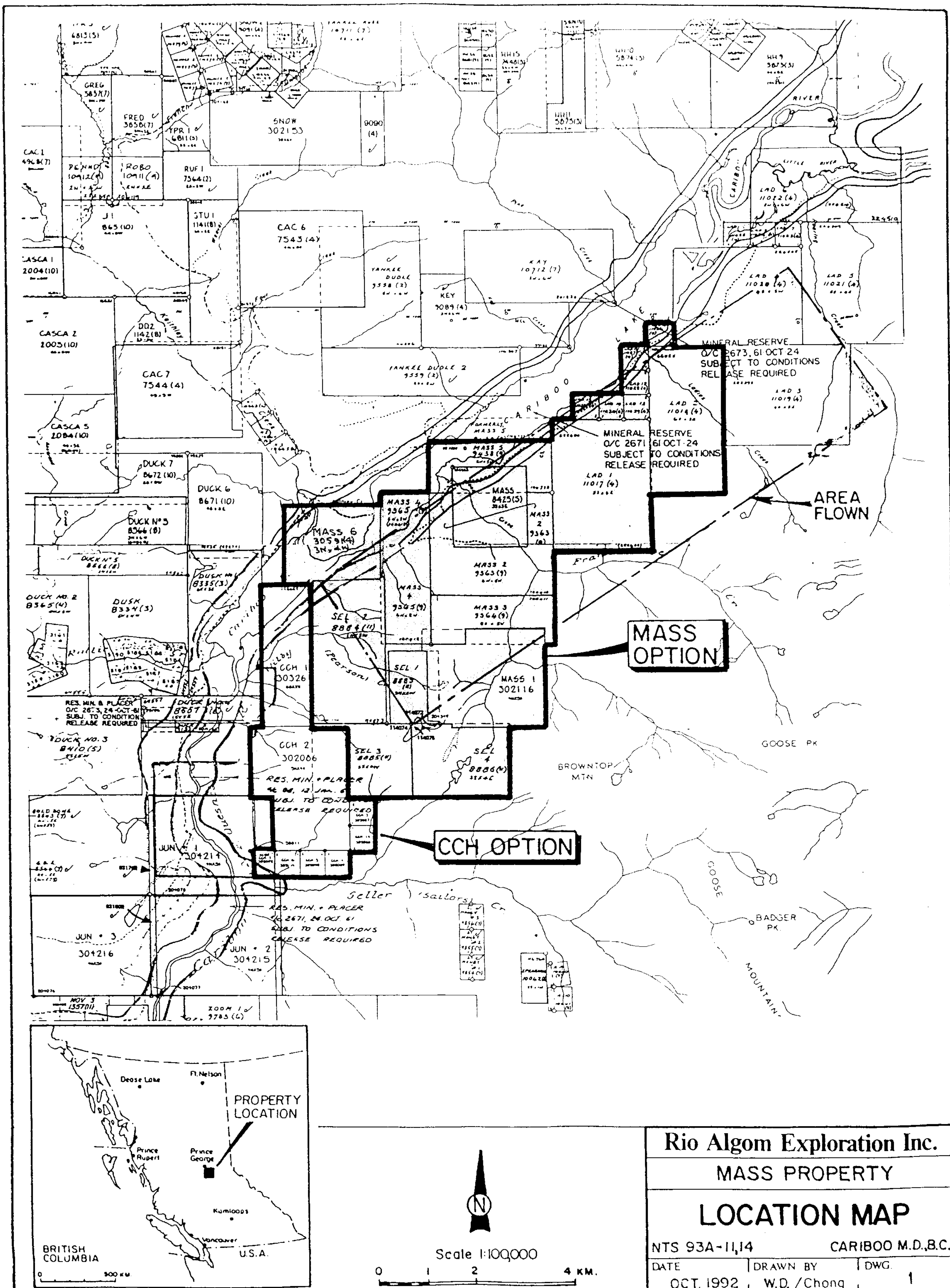
1.4 History

Frank Creek has seen sporadic placer mining activity since the early 1900's. The most recent placer work on the creek was undertaken by the Rasmussen brothers between 1984 and 1986. Boulders of massive sulphides were uncovered in the course of sinking a 14.6 metre shaft on the east side of the creek. A hard rock claim named the Home Run (9 units) was staked but little work was done and the property lapsed in 1987. Golden Eye Minerals restaked this area as the Mass claims in 1987 and incorporated them into the Mass group in February 1989.

In 1988, Formosa Resources Corporation optioned the Mass claims and carried out grid soil sampling, VLF-EM surveys and geological mapping over portions of the Mass 2, Mass 3, Mass 5 and Sel 1 claims. This work delineated a number of exploration targets consisting of coincident electromagnetic and coincident zinc-in-soil anomalies which Formosa geologists believed might be caused by massive sulphide mineralization.

The boulders were examined and sampled in 1991 by Rio Algom. The boulders are 30 to 60 cm across and consist solely of massive pyrite, with lesser pyrrhotite and minor sphalerite, galena, barite and chalcopyrite. White hydrozincite coats the surface. It was concluded that the sulphides in the boulders are the result of syngenetic mineralization, and that the boulders are from a local source.

The 1991 field programme of Rio Algom Exploration Inc. consisted of reconnaissance mapping, prospecting, silt sampling and an airborne EM survey, which was carried out over the entire potential boulder source area. Numerous EM conductors were identified by the airborne survey, leading to the more detailed exploration programme in 1992, reviewed in this report. Work in 1991 is described in a report by J.A. McClintock (1991).



Rio Algom Exploration Inc.

MASS PROPERTY

LOCATION MAP

NTS 93A-11,14 CARIBOO M.D.,B.C.

DATE	DRAWN BY	DWG.
OCT. 1992	W.D. /Chong	1

2 REGIONAL GEOLOGY

The Mass Property lies in the Cariboo Gold Belt (Struik, 1988) in the Barkerville Terrane, one of four fault-bounded stratigraphic and tectonic terrains that were deposited in an ocean and consisting of continental shelf and slope clastics, carbonates and volcaniclastics.

Geology of the area consists of the Harveys Ridge succession, a member of the Palaeozoic Snowshoe Group and consists of quartzite, phyllite, schist, siltite, limestone, conglomerate and metatuff. Regional geology in the immediate area of the Mass property consists of undifferentiated Snowshoe Group rocks to the east and Harveys Ridge succession to the north. To the west, the rocks are the Hadrynian(?) Keithley succession, consisting of quartzite, phyllite and minor marble. An intrusion of Palaeozoic Quesnel Lake granite orthogneiss occurs in this succession, extending onto the Property.

Structurally, the area is dominated by a northwest-striking, moderately southwest-dipping foliation, as determined from abundant metasedimentary rocks in the area. The Lightning Creek anticlinorium (a northwest-trending structure) occurs five kilometres north of Frank Creek. Structural disturbance was accompanied by regional prograde and retrograde metamorphism to a chlorite-grade facies.

The NTS 93A/14 mapsheet was mapped by L.C. Struik in 1977-1982 and released as map 1638A which accompanies GSC Memoir 421.

3 RIO ALGOM WORK PROGRAMME

The 1992 field programme consisted of geological mapping, geophysical work, geochemical sampling and a mechanical trenching programme.

3.1 Geological Mapping

Using the geological map prepared by Formosa Resources Corporation in 1988, the 1992 geological mapping programme consisted of further subdivision of the metasedimentary units, the aim being to attribute EM geophysical conductors to either graphitic schists or possible massive sulphide horizons. Mapping was at 1:10,000 scale by Rio Algom personnel at various times between May 24 and September 10, 1992.

3.2 Geophysical Work

An airborne EM geophysical survey was done for Rio Algom Exploration Inc by Aerodat Limited of Mississauga, Ontario in 1991 (McClintock, 1991). The airborne geophysical anomalies not explained by outcropping graphitic schist were investigated further by VLF-EM and GENIE HLEM surveys in 1992.

Four grids (labelled A to D) were flagged for a total of 17.25 km by Durfeld Geological Management Limited of Williams Lake, B C from June 1 to 7, 1992, inclusive. The grid lines were 100 metres apart, with stations at 25 metre intervals.

The author ran a VLF-EM survey using a hand-held EM-16. The VLF transmitter station used for grid A and B was Cutler 'NAA' and grid C and D used Seattle 'NPG'. Results appear in the attached geophysical report (Appendix IV) by Dennis V. Woods.

Euro-Canadian Geological Services Inc of Vancouver, B C was contracted to run the horizontal loop EM (GENIE) survey. It was conducted from June 15 to 24, 1992, inclusive. The results and report appear in Appendix IV.

3.3 Geochemical Sampling

In conjunction with the geological mapping, prospecting and trenching, 35 silt, 308 soil and 87 rock samples were collected. The locations are plotted on Maps 9 and 11 and the results are plotted on Maps 10 and 11. The analytical data appears in Appendix II and rock descriptions in Appendix III.

Silt samples were collected from flowing streams encountered during prospecting and geological mapping. The silts were placed in kraft bags and sent to Acme Laboratory in Vancouver for analysis.

Soil samples were collected from grids A to C, over the VLF-EM conductors only. Grid D was sampled in its entirety. Soil grids were run on either side of Frank Creek, just above the massive sulphide boulder occurrence, and also in the southeast in an area where anomalous silts were obtained from two creeks. Anomalous soils at four sites on grids A-

C were resampled from the same hole and depth (sample designator 'RS') and from the same hole, but at a 60-80 cm depth (sample designator 'PB'). These results are not plotted on the zinc and lead map (Map 10), however the results may be found on the accompanying assay sheets in Appendix II. Soil samples were collected in kraft bags and sent to Acme Analytical Laboratories, Vancouver, B.C. for analysis.

Rocks sampled consisted of float, outcrop, and bedrock in the trenches on grids A-D. Approximately two kilograms of rock chips were collected for each sample, and the samples were sent to Chemex Laboratory of North Vancouver, B.C. for analysis.

3.4 Trenching Programme

The objective of the 1992 trenching was to assess the potential zinc/lead massive sulphide potential of several unexplained GENIE HLEM anomalies with or without coincident soil anomalies.

Guinet Management of Vancouver was contracted for 390 metres of trenching. A total of six trenches were excavated on grids A-D from September 1 to September 8, 1992.

Data on the six trenches is noted below:

Grid	Trench	Grid Location		Length (m)
A	A-1	13+00E	21+50N - 22+35N	85
B	B-1	11+00E	20+00N - 20+75N	75
	B-2	13+00E	19+65N - 20+00N	35
C	C-1	13+35N	17+25E - 17+80E	55
	C-2	11+00N	17+25E - 17+75E	50
D	D-1	10+00N	27+25E - 28+15E	90

The purpose of trenches A-1, B-1 and C-2 was to test coincident GENIE HLEM and soil anomalies. The other three trenches were excavated to test GENIE HLEM anomalies without coincident geochemical anomalies.

Six trenches were excavated and then mapped, with a 2 metre chip rock sample, approximately every 5 metres. Locations of the trenches are shown on Map 8 and the results are plotted on Maps 2 to 7. Analytical data appears in Appendix II. Detailed mapping of the trenches differentiated the various rock types, as described in 4.1 - Property Geology.

All trenches were backfilled and landscaped. Rio Algom personnel applied fertilizer and reseeded the trench sites in accordance with regulations of the Ministry of Energy, Mines and Petroleum Resources.

3.5 Laboratory Procedures

All samples were analyzed for gold (by FA/AA) and 30 or 32 elements by ICP (depending on the laboratory).

Soil samples were dried at 60°C, sieved to -80 mesh. A 0.5 gram sample was then digested with 3 ml 3-1-2 ($HCl-HNO_3-H_2O$) at 95°C for one hour and diluted to 10 ml with water. Analysis for 30 or 32 elements was by inductively coupled plasma (ICP). For gold analysis, a 10.0 gram sample was ignited at 600°C, digested with hot aqua regia, extracted with MIBK and analyzed by graphite furnace atomic absorption.

Rock samples were pulverized to -140 mesh and analyzed using the same procedure as described above. For gold however, the 10.0 gram sample was pre-concentrated using fire assay techniques and finished by atomic absorption analysis.
Silt samples were sieved to -80 mesh and a portion of the -80 mesh fraction was analyzed geochemically for gold and 30 additional elements by ICP.

4 RESULTS OF WORK

4.1 Property Geology

The purpose of the 1992 work programme was to assess the potential for zinc-lead massive sulphide mineralization on the Mass Property. To this end, prospecting, geological mapping (1:10,000 scale) and selective lithologic, silt and soil sampling was carried out.

Detailed mapping in 1992 has further subdivided the metasedimentary and sedimentary units mapped by Formosa Resources Corporation in 1988.

Property geology consists mainly of metasedimentary rocks of the Palaeozoic Harveys Ridge succession (a member of the Snowshoe Group), that have been intruded by Palaeozoic Quesnel Lake granite orthogneiss and minor Tertiary lamprophyre dykes. Descriptions of the units mapped, with the labels used on the accompanying maps, are as follows.

Metasedimentary Rocks

SAT: Sericite-Albite-Talc Schist

Localized along the east-central portion, this rock was originally a volcanic tuff(?). It is a light green, fine-grained, schistose rock composed of sericite, albite and talc. Minor quartz veins to 6 mm wide cut the unit and aggregates of pyrite (to 8 mm) average less than 0.5%. Scattered throughout are 1% ankerite porphyroblasts (to 2 mm).

SS: Sericite Schist

Silvery-yellow coloured, vitreous rock, fine-grained, with a good schistose fabric due to pervasive sericite. Minor ankerite porphyroblasts to 1 mm. There is also a trace of disseminated pyrite.

CS: Chlorite Schist

Dark olive-green to black coloured rock, very fine- grained, composed entirely of chlorite. A good foliation is present. There are 2% ankerite porphyroblasts to 3 mm. Minor quartz veins may cut the rock. Minor disseminated pyrite is present.

GS: Graphitic Schist

Dull silver-grey colour, very fine-grained, graphite-rich rock, that is conductive. A good foliation is developed in this rock.

PH: Phyllite

Dark grey to black coloured rock, very fine-grained, with a phyllitic texture. There are up to 2% ankerite porphyroblasts in the rock to 2 mm size. Minor disseminated pyrite may be present.

The following two schists are not abundant:

QCS: Quartz-Chlorite Schist

Grey-green colour, medium-grained rock composed of quartz and chlorite, with a weak schistose fabric. There are 2% - 1 mm ankerite porphyroblasts throughout.

QSS: Quartz-Sericite Schist

Grey-yellow colour, medium grain rock composed of quartz and sericite. It has a weak schistose fabric, and contains 2% - 1 mm ankerite porphyroblasts throughout.

Sedimentary Rocks

Sedimentary rocks without foliation comprise only 10% of all rocks on the Mass option.

AR: Argillite

Dark grey, fine-grained rock that is well-bedded. Minor carbonate veins to 1 mm wide cut the unit and some pyrite may be disseminated in the matrix. All fractures are rust-coloured. Argillite in some of the trenches was graphitic.

QA: Quartz Arenite

Light grey colour, with a medium grained, quartz-rich matrix. Minor chlorite is present as well as other sedimentary grains. There are 2% ankerite porphyroblasts in the matrix. The matrix has a weak schistose fabric with a trace of pyrite cubes to 8 mm.

AK: Arkose

Light tan colour, very fine-grained rock. Minor sericite has produced a weak schistose fabric in the rock. There is a trace of disseminated pyrite.

GT: Grit

Brown-grey colour, medium to coarse-grained rock composed of quartz grains to 3 mm, feldspars and other sedimentary minerals in a weakly chloritic and schistose matrix. There are 1% ankerite porphyroblasts in the matrix.

LC: Lithic Conglomerate

Tan-white colour, with lithic clasts (mainly quartz, minor lithic fragments) to 6 cm set in a medium to coarse-grained, channel-fill matrix. The matrix is quite siliceous and has a trace of carbonate. Clasts are elongated and flattened along the foliation plane, which parallels bedding. Quartz veins to 3 cm occur parallel to bedding. Minor disseminated pyrite was observed in some outcrops.

DOL: Dolomite

Two varieties of dolomite were observed:

1) Characteristic light-brown weathered surface, with a light grey-tan fresh surface. The rock is fine-grained with a weak crystalline appearance. Bedding is readily apparent. There is no visible mineralization.

2) Medium-grained crystalline rock with a grey-green coloured fresh surface. Bedding planes are not as apparent as in the first dolomite. The rock has minor disseminated pyrite.

LS: Limestone

Light grey colour, medium-grained, crystalline carbonate. Bedding is apparent (light versus dark layers). The crystallinity is due to metamorphic activity. There is no visible mineralization.

Intrusive Rocks

QLG: Quesnel Lake Granite Orthogneiss

Brown-grey-white colour, with phenocrysts of plagioclase to 6 cm set in a medium to coarse-grained matrix composed of quartz, plagioclase, potassic feldspar, chlorite and minor mafic minerals. Metamorphism has produced definite foliation planes, with most minerals being stretched along the planes. No visible mineralization.

LAM: Lamprophyre Dyke

A minor Tertiary dyke (1 metre wide) was noted in the southwest corner, cross-cutting the Quesnel Lake granite orthogneiss.

The rock is dark green, fine-grained and chloritic. There is no visible mineralization.

4.2 Structure

A good structural picture is evident in this metasedimentary package. Most rocks on the property are variably slaty, foliated, laminated or schistose. The regional metamorphic grade is the chlorite zone of the green schist facies. Measurements of foliations and lineations in schistose rocks indicates that a northwest-plunging syncline occurs in the central portion. The syncline plunges 15° northwest and both walls dip on average, 50°.

Bedding measurements on the eastern portion indicate a fining-upward sequence, with the lithic conglomerate being the base of the sedimentary package, overlain by phyllite, argillite, quartz arenite, chlorite and sericite schist.

Quartz augen, lenses and bedding parallel and cross-cutting bull quartz veins occur everywhere, but are more prominent in the more deformed areas (McClintock, 1991).

Structural measurements in the trenches concur with those observed in outcrop. Intense structural deformation and faulting has formed several wide "clay-fault gouge" zones in which the country rock has been intensely sheared, resulting in its alteration to clay. This clay-fault gouge has been observed in some of the argillites and graphitic schists, in intervals to 8 metres wide.

4.3 Mineralization

Disseminated pyrite to 1% was observed in some phyllites and argillites. Cubic pyrite (2 to 7 mm size) was observed in quartz arenites and the schistose rocks, to 1%. In trench B-1, beds of pyrite 1 to 5 mm thick were noted in the argillite and graphitic argillite at the north end of the trench.

The graphitic schists had low to abundant flake-graphite along bedding planes.
There is no evidence of massive sulphide mineralization in any of the outcrops.

4.4 Silt Sampling

Silt sampling was conducted to delineate a source drainage for the massive sulphide boulders found at the base of Frank Creek.

A total of 35 silt samples were collected on the Property. The background used for zinc is 100 ppm and for lead 30 ppm.

All samples to the east of, and along Frank Creek are considered to be background.

Two creeks passing through grid E (in the southeast) show elevated zinc and lead content (up to 379 ppm zinc, 53 ppm lead). While anomalous, and no source was found, it is the author's opinion that these values are the result of high background in nearby argillites or due to possible manmade contamination (old logging activities at the western end of each creek).

4.5 Soil Sampling

Soil sampling was conducted over grids A to D to follow up VLF-EM anomalies. Two soil lines were also run on either side of Frank Creek to search for a possible source of the massive sulphide boulders. Soils were collected over the southeast corner (grid E) over and beside the two anomalous creeks noted above, to test for a possible source of the silt anomalies.

Due to high soil values found throughout, the sampled areas backgrounds are considered to be 200 ppm for zinc and 60 ppm for lead. Using these cutoffs, the following observations can be made:

Grid A has scattered zinc and lead values. The highest zinc is 409 ppm and the highest lead, 160 ppm. At A13+00E, 22+00N, a hand excavated test pit resampled the original sample (409 ppm zinc, 137 ppm lead), resulting in 1765 ppm zinc and 1210 ppm lead; and, 60 cm deeper, 1999 ppm zinc and 1566 ppm lead. Mechanical trenching revealed graphitic argillite at this grid co-ordinate. Rock sample #15403 gave 1880 ppm zinc and 1240 ppm lead and is probably the source of the soil anomaly. However it is localized and values were not comparable in rock and soil samples to either side.

Grid B had scattered zinc and lead, the highest being 664 ppm and 195 ppm, respectively. Several shears and faults were observed in two trenches on the B grid. These may have concentrated mineralization along them, resulting in the soil anomalies.

Grid C had numerous zinc and lead anomalies, the highest being 627 ppm zinc and 740 ppm lead. Trench C-2 was over this anomaly, and rock sample #15390 had 494 ppm zinc and 340 ppm lead. The rock was a quartz-chlorite schist with 2% pyrite.

Grid D had one lead anomaly of 92 ppm.

The two soil lines on either side of Frank Creek had three zinc anomalies (615, 331, 209 ppm) and two lead anomalies (126, 66 ppm) scattered throughout. As these anomalies are localized it is the author's opinion that they are possibly due to weakly mineralized float in the overburden.

Grid E in the southeast corner, beside and across the two creeks failed to indicate a possible source for the anomalous silts. A total of three soil anomalies are present: 264 and 243 ppm zinc and 66 ppm lead. All others are at background.

4.6 Rock Sampling

Values above 200 ppm zinc and 60 ppm lead are considered to be anomalous in rocks. Four of the surface rock samples are anomalous.

One of the massive sulphide boulders at the base of Frank Creek was sampled. Sample #15224 contained 2.83% zinc, 2.44% lead, 1355 ppm copper, 73 ppm silver and 150 ppb gold. These results are similar to those obtained from boulder sampling in previous years (McClintock, 1991).

On grid A, rock sample #15230 at A13+00E, 22+00N ran 506 ppm zinc and 344 ppm lead. It was a float sample of argillite cut by quartz stringers, with 6% limonite on all fracture surfaces. This grid co-ordinate corresponds to the soil anomaly noted earlier.

On grid B, rock sample #15223 at B11+00E, 20+50N ran 332 ppm zinc and 384 ppm lead. It was of quartzite(?) float with 2% disseminated pyrite.

Sample #A5232, on the spur road to the east of Wilby Creek, ran 128 ppm lead . The rock was a graphitic schist.

Assays of rock from the trenches were generally more anomalous than those in outcrop. In trench A-1, anomalous zinc ranged from 214 -436 ppm and anomalous lead 80 - 280 ppm. Sample #15403 ran 1880 ppm zinc and 1240 ppm lead in a graphitic argillite.

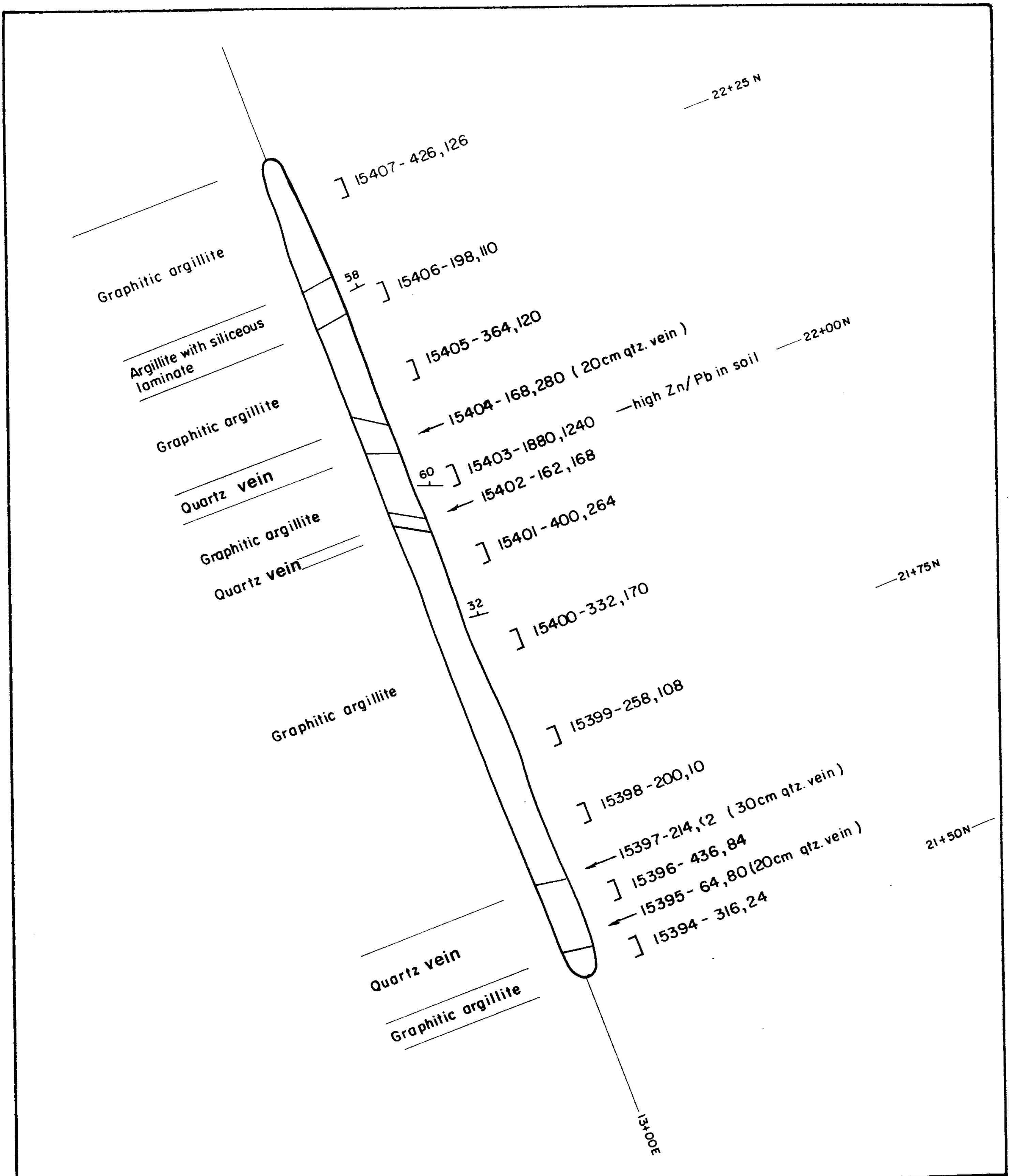
In trench B-1 anomalous zinc ranged from 304 - 4360 ppm and lead 64 - 880 ppm. The high zinc, lead (4360, 880 ppm, respectively) in sample #15371 was from a graphitic schist, beside clay fault gouge. This anomalous value is seen as the result of remobilization of minerals during faulting. Sample #15367 had 1485 ppm zinc, 234 ppm lead, > 10,000 ppm copper and 25.8 ppm silver. The sample is of a large chloritic schist boulder originally thought to be outcrop.

Trench B-2 had one anomalous zinc of 458 ppm in a graphitic argillite shear zone.

In trench C-1, anomalous zinc ranged from 222 - 802 ppm and lead 70 - 636 ppm. Two anomalous samples were of quartz veins. The remaining anomalous samples were from sericite schists, chlorite schists and graphitic argillite.

In trench C-2, anomalous zinc ranged from 208 - 518 ppm and lead 106 - 340 ppm. A sample of clay fault gouge (#15393) gave 2130 ppm zinc and 2220 ppm lead.

Trench D-1 had anomalous zinc (394 ppm) in a sample of graphitic argillite fault gouge (#15354).



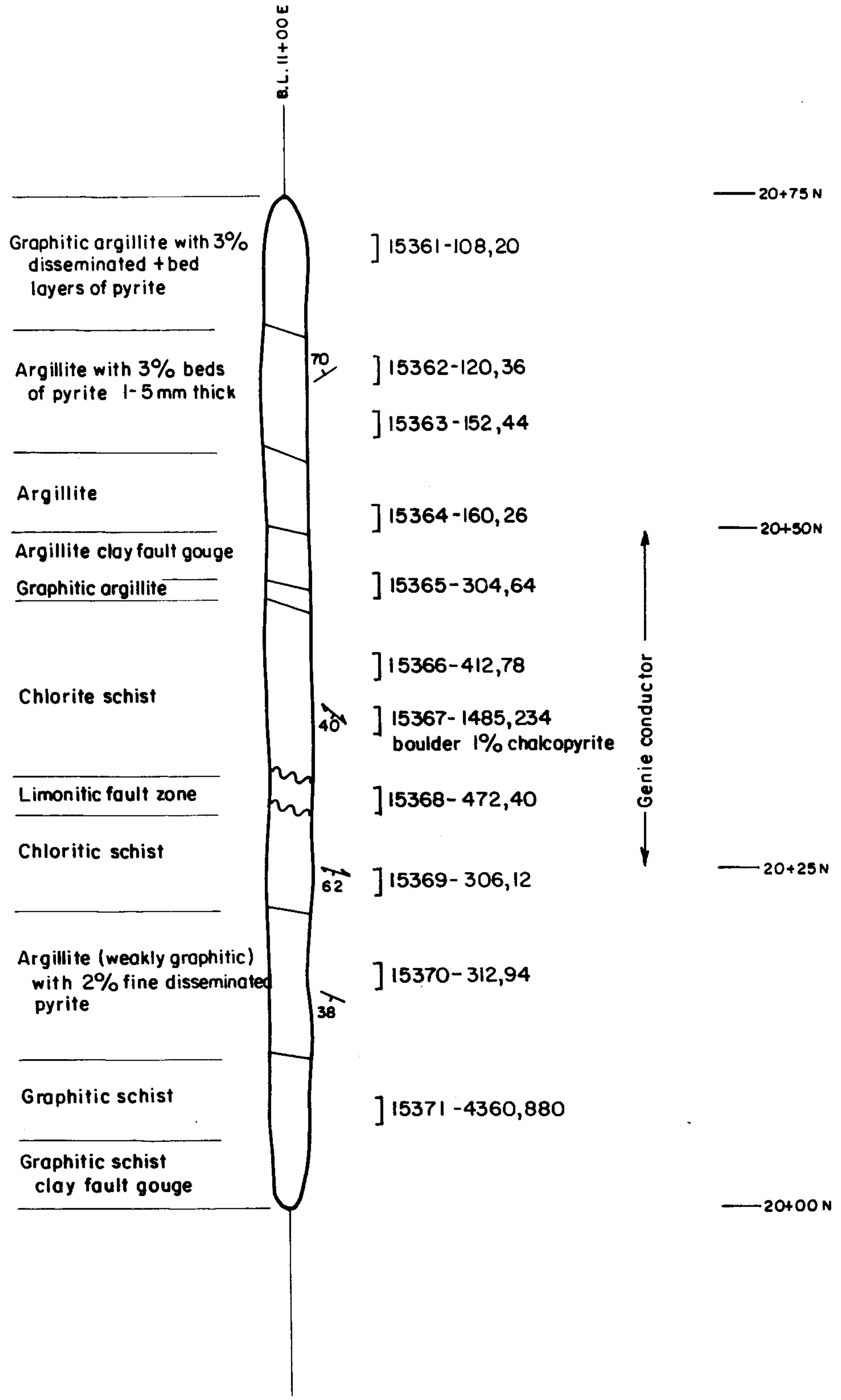
15403-105,95 SAMPLE Nº – ZINC, LEAD (ppm)
BEDDING (Strike, dip)
FOLIATION (" , ")

N

Scale 1:500

0 5 10 20 METRES

Rio Algom Exploration Inc.		
MASS PROPERTY		
'A' GRID (TRENCH A–1)		
NTS 93A-11,14		CARIBOO M.D.,B.C.
DATE OCT. 1992	DRAWN BY W.D. /Chong	DWG. 2



15403-105,95 SAMPLE Nº – ZINC, LEAD (ppm)

BEDDING (Strike, dip)

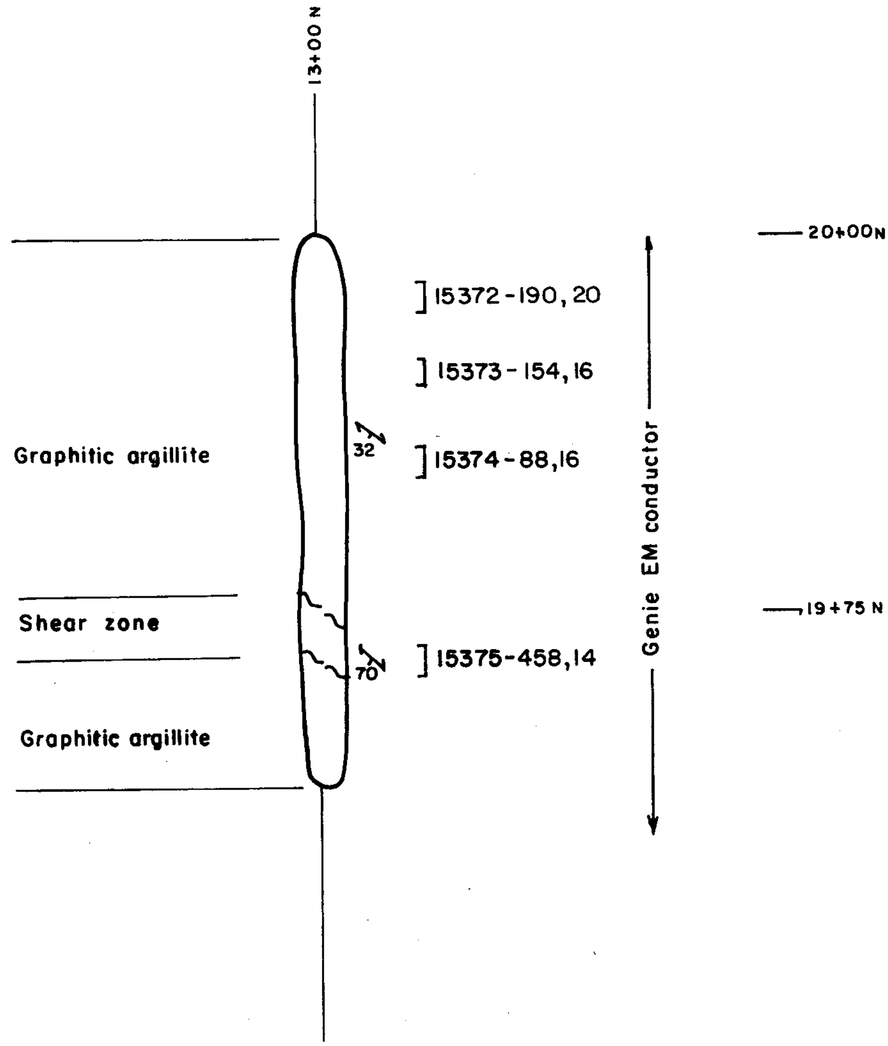
FOLIATION (" , ")

N

Scale 1:500

0 5 10 20 METRES

Rio Algom Exploration Inc.		
MASS PROPERTY		
'B' GRID (TRENCH B-1)		
NTS 93A-11,14		CARIBOO M.D.,B.C.
DATE OCT. 1992	DRAWN BY W.D. /Chong	DWG. 3



15403-105,95 SAMPLE Nº – ZINC, LEAD (ppm)
BEDDING (Strike, dip)
FOLIATION (" , ")

Scale 1:500
0 5 10 20 METRES

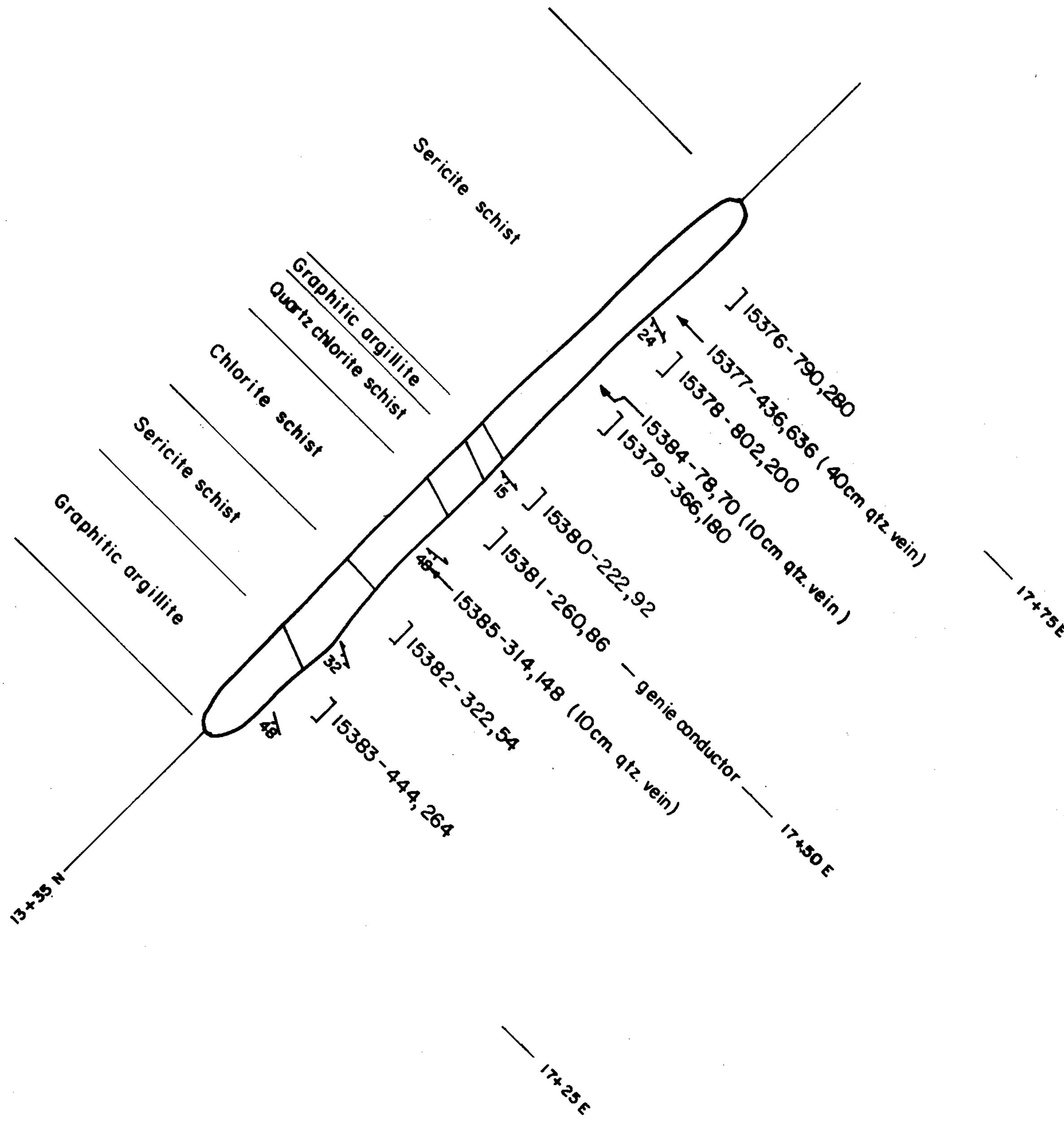
Rio Algom Exploration Inc.

MASS PROPERTY

'B' GRID (TRENCH B-2)

NTS 93A-11,14 CARIBOO M.D.,B.C.

DATE	DRAWN BY	DWG.
OCT. 1992	W.D. / Chong	4



15403-105,95 SAMPLE Nº – ZINC, LEAD (ppm)

BEDDING (Strike, dip)

FOLIATION (" , ")

Scale 1:500

0 5 10 20 METRES

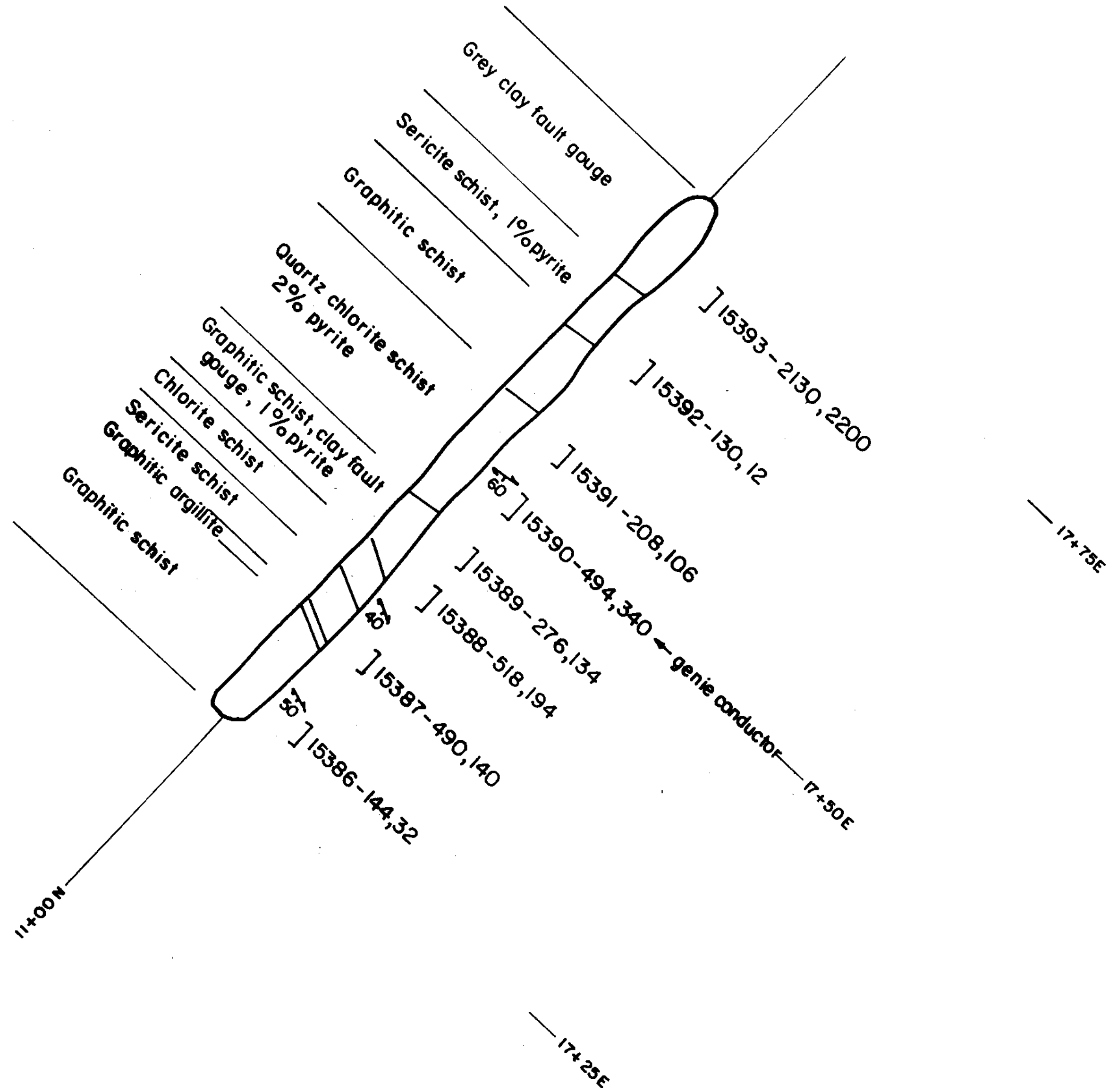
Rio Algom Exploration Inc.

MASS PROPERTY

'C' GRID (TRENCH C-1)

NTS 93A-11,14 CARIBOO M.D.,B.C.

DATE	DRAWN BY	DWG.
OCT. 1992	W.D. /Chong	5



15403-105,95 SAMPLE Nº – ZINC, LEAD (ppm)

BEDDING (Strike, dip)

FOLIATION (" , ")

N

Scale 1:500

0 5 10 20 METRES

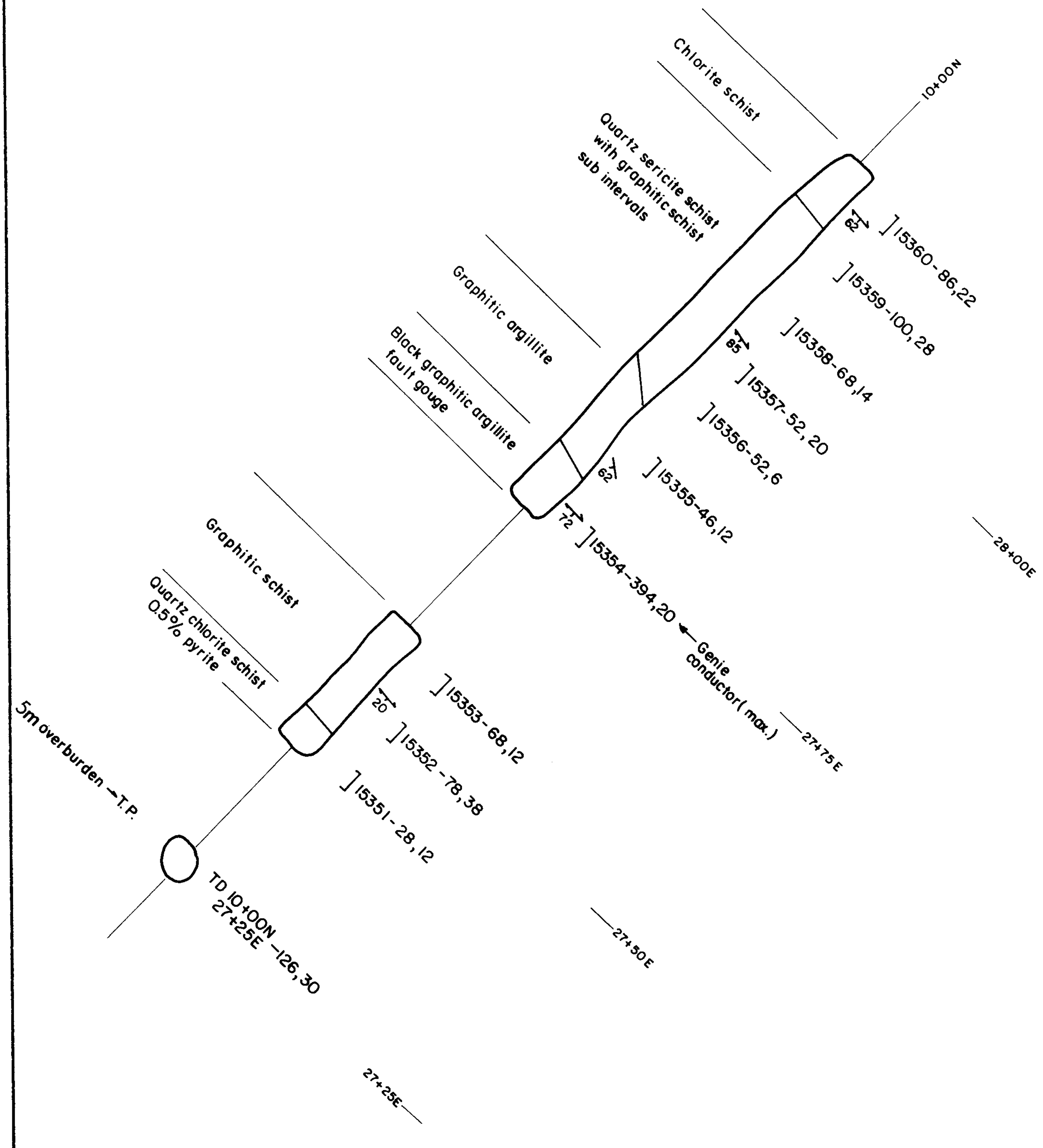
Rio Algom Exploration Inc.

MASS PROPERTY

'C' GRID (TRENCH C-2)

NTS 93A-11,14 CARIBOO M.D.,B.C.

DATE	DRAWN BY	DWG.
OCT. 1992	W.D. /Chong	6



15403-105,95 SAMPLE Nº - ZINC, LEAD (ppm)
BEDDING (Strike, dip)
FOLIATION (" , ")

N

Scale 1:500
0 5 10 20 METRES

Rio Algom Exploration Inc.

MASS PROPERTY

'D' GRID (TRENCH D-1)

NTS 93A-11,14	CARIBOO M.D., B.C.

DATE	DRAWN BY	DWG.
OCT. 1992	W.D. / Chong	7

5 CONCLUSIONS AND RECOMMENDATIONS

Evaluation of the Mass Property as a possible source for the massive sulphide mineralization in float resulted in disappointing results.

All of the geophysical anomalies from the airborne Em in 1991 and GENIE HLEM in 1992 are the result of graphitic argillite and graphitic schist, and are not due to massive sulphide mineralization.

Though there were some high results, the source of the soil anomalies are considered by the author to be caused by either high background in the metasedimentary rocks, localized mineralized quartz veining, or faults and shears resulting in the remobilization of minerals.

Rock sampling on surface and in the trenches indicated anomalous zinc and lead. However, the values are quite variable, non-continuous and well below economic levels. The boulders have no host rock and thus cannot be matched to any setting seen on the property.

In conclusion, the geological environment is not inhospitable to the type of mineralization observed in the boulders, but the work performed by Rio Algom has failed to find a source for these. Thus either i) the source is up ice (and off the property), or ii) the source is very small and not detectable by the work done. If it is small, the target is not attractive to Rio Algom. All anomalous situations have been explored. It is most unlikely that the source of the boulders would not have been reflected as both geochemical and geophysical features.

As the results of the 1992 field programme on the Mass Property were not encouraging, it is recommended that Rio Algom terminate the option, and return the property to Formosa Resources Corporation and Annex Exploration Corp.

6 REFERENCES

Martin, L S	Geological, Geochemical and Geophysical Report on the Mass Property, 1989. BCDM Assessment Report
McClintock, J A	Mass and Annex Options. Geology, Geochemistry and Geophysics, 1991. BCDM Assessment Report
Struik, L C	Structural Geology of the Cariboo Gold Mining District, East-Central British Columbia. GSC Memoir 421, 1988

7 STATEMENT OF QUALIFICATIONS

I, William Stratton Donaldson, do hereby certify that:

1 I am a graduate of Carleton University in Ottawa, Ontario with an Honours Bachelor of Science degree (1985) in Geology.

2 I have practised my profession as a geologist continually since graduation.

3 I currently reside at 14-1609 Harwood Street, Vancouver, British Columbia.

4 I am temporarily employed as a geologist with Rio Algom Exploration Inc with an office at 1650-609 Granville Street, Vancouver, British Columbia.

5 I personally assisted in the supervision of the geological, geophysical, geochemical and mechanical trenching programmes conducted on the Mass option during the 1992 field season.

William Donaldson

William Stratton Donaldson
October 1992

APPENDIX I

COST STATEMENT

APPENDIX I - COST STATEMENT

Salaries

W. Donaldson, Geologist May 24 - Jun. 7, Jul. 1 - 10, Aug. 12 - 16, 31, Sep. 1 - 10 41 days @ $ 250/day	$ 10250.00
J. McClintock, Geologist June 1, 2, 17, 18 4 days @ $ 350/day	$ 1400.00
S. Casselman, Geologist Sep. 7 - 10 4 days @ $ 250/day	$ 1000.00
M. Renning, Prospector July 1 - 10, Aug. 12 - 16, 31, Sep. 1 - 3 19 days @ $ 215/day	$ 4085.00
Subtotal	**$ 16,735.00**

Other Expenses

Meals	$ 1105.00
Groceries	$ 260.00
Accommodation	$ 1845.00
Field Supplies	$ 2062.00
Freight and Shipping	$ 341.00
Airfare (J. McClintock, C. Spence, M. Renning)	$ 955.00
Subtotal	**$ 6,568.00**

Transportation

Truck Rental (Nicholson and Associates), Fuel	$ 3045.00
Boat Rental (2 days from G. Biggs, Likely, B C)	$ 80.00
Subtotal	**$ 3,125.00**

Reports

Preparation, Drafting, Miscellaneous	$ 7500.00
Geophysical Report and Maps - Dennis V. Woods	$ 2541.25
Subtotal	**$ 10,041.25**

Contract Work

Grid Flagging - Durfeld Geological Management Ltd.	$ 2939.32
GENIE HLEM Survey - Euro-Canadian Geological	$ 11342.00
Mechanical Trenching - Guinet Management	$ 8626.88
Subtotal	**$ 22,908.20**

Geochemical

Analysis, Acme Analytical Laboratory	
308 soils, 35 silts @ $ 10.81/sample	$ 3707.83
Analysis, Chemex Laboratory	
87 rocks @ $ 17.88/sample	$ 1555.56
Subtotal	**$ 5263.39**
TOTAL COSTS	**$ 64,640.84**

COSTS APPORTIONED TO GROUPINGS:

GROUP	GEOLOGY/GEOCHEMISTRY	PHYSICAL	TOTAL
I	$ 14,505.40	$ 7,472.48	$ 21,977.88
II	$ 28,157.55	$ 14,505.41	$ 42,662.96
TOTAL			**$ 64,640.84**

APPENDIX II

ANALYTICAL DATA

GEOCHEMICAL ANALYSIS CERTIFICATE

Rio Algom Exploration Inc. PROJECT 9124 File # 92-1321

P.O. Box 10335, 1650 - 60, Vancouver BC V7Y 1G5 Submitted by: W. DONALDSON

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
SSM-1	1	25	13	96	.2	52	20	564	3.45	6	5	ND	11	15	2.7	2	2	16	.27	.079	31	26	.65	29	.02	2	1.35	.01	.04	1	9
SSM-2	1	25	10	64	.1	26	13	644	2.90	10	5	ND	6	36	2.3	2	2	8	.57	.088	28	17	.38	29	.01	2	1.20	.01	.03	1	6
SSM-3	1	24	10	104	.2	36	16	638	3.31	7	5	ND	10	20	3.3	2	2	10	.34	.085	36	18	.41	34	.01	2	1.18	.01	.04	1	2
SSM-4	1	23	11	113	.1	34	14	556	3.26	6	5	ND	12	18	3.1	2	2	12	.28	.073	39	19	.41	33	.01	2	1.18	.01	.03	1	9
SSM-5	1	18	10	118	.3	32	14	654	3.21	9	5	ND	9	21	4.1	2	2	10	.37	.078	35	17	.50	38	.01	2	1.22	.01	.03	1	1
SSM-6	1	20	13	120	.1	34	14	712	3.11	9	5	ND	11	20	3.0	2	2	7	.35	.087	38	18	.38	38	.01	2	1.11	.01	.03	6	5
SSM-7	1	21	15	113	.2	33	15	671	3.68	10	5	ND	8	23	3.5	2	2	9	.36	.080	32	19	.41	39	.01	2	1.30	.01	.03	1	11
SSM-8	1	23	9	76	.1	27	13	528	3.12	7	5	ND	6	35	2.5	2	2	11	.51	.089	25	20	.56	38	.02	2	1.30	.01	.05	1	10
SSM-9	1	25	14	63	.2	26	12	695	2.74	7	7	ND	4	46	2.1	2	2	9	.73	.093	30	19	.37	33	.01	2	1.20	.01	.04	1	3
SSM-10	1	26	10	83	.1	34	16	456	3.26	5	5	ND	10	15	2.8	2	2	12	.26	.071	29	20	.44	28	.02	2	1.20	.01	.03	1	1
RE SS-M92-102	1	46	49	243	3.4	90	22	3830	4.52	19	5	ND	4	80	5.1	2	2	20	1.17	.225	67	19	.28	274	.01	2	2.38	.01	.07	1	3
SSM-11	1	23	17	90	.2	35	13	538	3.28	2	5	ND	7	21	2.7	2	2	9	.38	.093	36	17	.41	43	.01	2	1.40	.01	.03	1	2
SSM-12	3	180	46	247	.5	75	16	597	3.80	55	5	ND	3	44	3.8	2	2	14	.60	.123	18	21	.45	113	.02	2	.88	.01	.08	1	5
SS-M92-100	2	28	18	169	.2	43	18	709	3.68	10	5	ND	8	21	3.1	2	2	14	.42	.094	28	21	.75	74	.01	2	1.57	.01	.03	1	1
SS-M92-101	2	51	74	281	3.5	122	37	5916	5.23	24	5	ND	7	70	6.0	2	2	24	.96	.257	75	22	.32	355	.01	2	3.22	.01	.08	1	1
SS-M92-102	1	47	53	243	3.5	90	22	3871	4.54	18	5	ND	2	81	4.9	2	2	20	1.17	.222	68	20	.27	275	.01	2	2.38	.01	.07	1	5
SS-M92-103	1	38	45	193	2.5	65	17	2217	3.37	14	5	ND	2	73	3.8	2	2	17	1.09	.180	61	18	.30	218	.01	2	2.00	.01	.05	1	5
SS-M92-104	1	45	45	221	3.3	77	22	3201	3.66	19	5	ND	2	85	4.2	2	2	18	1.31	.206	69	19	.31	237	.01	3	2.17	.01	.06	1	11
SS-M92-105	1	37	19	91	.1	43	18	539	3.66	5	5	ND	7	24	2.7	2	2	9	.40	.089	41	17	.65	44	.01	2	1.50	.01	.03	1	7
SS-M92-106	1	29	16	86	.2	35	12	219	3.31	4	5	ND	8	21	2.7	2	2	9	.34	.084	37	17	.56	42	.01	2	1.46	.01	.04	1	7
SS-M92-107	2	54	23	133	.6	66	17	873	3.93	5	5	ND	4	13	3.0	2	2	12	.23	.048	21	14	.28	92	.01	2	1.20	.01	.03	1	8
SS-M92-108	2	63	32	379	2.1	109	32	7087	5.53	23	5	ND	5	80	5.9	2	5	16	1.85	.179	76	16	.35	227	.01	4	2.61	.01	.06	1	3
SS-M92-109	3	58	30	319	1.9	89	31	6836	6.20	27	5	ND	5	56	4.8	2	2	13	1.20	.174	71	17	.32	206	.01	2	2.61	.01	.06	1	3
SS-M92-110	2	36	19	309	.6	56	24	6072	4.81	17	5	ND	4	39	4.7	2	2	10	.78	.098	33	13	.33	188	.01	2	1.59	.01	.05	1	2
STANDARD C/AU-S	19	59	41	132	7.1	71	31	1044	3.98	41	17	7	37	52	17.8	15	20	54	.48	.091	37	56	.88	178	.09	34	1.88	.07	.15	10	53

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: SILT AU** ANALYSIS BY FA/ICP FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: JUN 5 1992 DATE REPORT MAILED: June 15/92 SIGNED BY. C. Leong .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

ACM A L I RAT S L E. STI ST. COU B.C 76A ONE)25 58 (6 53-

GEOCHEMICAL ANALYSIS CERTIFICATE

Rio Algom Exploration Inc. PROJECT 9124 File # 92-1323

P.O. Box 10335, 1650 - 60, Vancouver BC V7Y 1G5 Submitted by: W. DONALDSON

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
A5210	8	191	10	121	.1	19	12	985	9.00	4	5	ND	9	61	.5	2	6	72	.86	.301	14	35	2.69	231	.13	2	3.35	.01	.18	1	6
A5231	2	227	4	92	.1	8	9	688	6.89	3	5	ND	9	15	.2	2	7	32	.30	.054	11	32	2.51	139	.14	2	3.05	.01	.20	1	12
A5232	4	138	128	70	1.3	28	33	446	12.35	63	5	ND	2	4	.2	2	38	12	.03	.023	5	22	.43	81	.01	6	.59	.01	.08	1	21
RE A5231	3	221	2	91	.1	9	9	696	7.05	2	5	ND	10	15	.2	2	8	33	.29	.055	11	32	2.52	137	.14	2	3.03	.01	.21	1	6

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
ASSAY RECOMMENDED FOR ROCK AND CORE SAMPLES IF CU PB ZN AS > 1%, AG > 30 PPM & AU > 1000 PPB
- SAMPLE TYPE: ROCK AU** ANALYSIS BY FA/ICP FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: JUN 5 1992 **DATE REPORT MAILED:** June 12/92 **SIGNED BY** C. Leong ....D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

ACME AN[illegible]TICAL LABORATORIES LTD. 852 E. HASTINGS ST. V[illegible]COUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX([illegible])253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Rio Algom Exploration Inc. PROJECT 9201 File # 92-1583 Page 1

P.O. Box 10335, 1650 - 60, Vancouver BC V7Y 1G5 Submitted by: WILLIAM DONALDSON

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
SS-M92-111	1	24	17	76	.2	35	15	932	3.04	10	5	ND	12	24	.3	2	2	14	.25	.052	37	17	.49	44	.02	3	1.05	.01	.06	1	6
SS-M92-112	1	31	18	90	.2	39	18	1220	3.54	11	5	ND	11	26	.2	2	2	12	.27	.054	43	18	.52	49	.02	6	1.16	.01	.06	1	4
SS-M92-113	1	31	18	91	.4	42	18	1326	3.46	12	5	ND	15	24	.3	2	2	11	.24	.052	46	17	.48	53	.02	5	1.07	.01	.06	1	6
SS-M92-114	1	31	19	109	.2	52	21	2039	3.70	15	5	ND	10	37	.4	2	2	12	.38	.068	55	18	.50	73	.02	4	1.19	.01	.08	1	1
SS-M92-115	1	25	17	85	.1	39	18	1459	3.22	14	5	ND	9	31	.2	2	2	11	.32	.057	43	16	.44	52	.02	2	1.01	.01	.07	1	3
SS-M92-116	1	27	18	103	.1	56	19	1901	3.25	12	5	ND	8	31	.4	2	2	10	.32	.056	55	16	.43	61	.03	5	.94	.01	.05	1	7
SS-M92-117	1	26	14	57	.5	36	12	621	2.46	12	5	ND	9	33	.9	2	2	13	.45	.055	48	21	.40	33	.02	11	.93	.01	.04	1	3
SS-M92-118	1	22	17	87	1.0	36	15	1122	2.97	13	5	ND	10	31	.4	4	2	12	.33	.063	49	16	.40	53	.02	15	1.01	.01	.10	1	5
SS-M92-119	1	18	13	80	1.1	23	10	688	2.26	11	5	ND	14	20	.2	7	3	11	.20	.047	28	14	.33	30	.01	8	.80	.01	.08	2	5
SS-M92-120	1	51	29	84	.8	46	21	786	3.90	17	5	ND	22	15	.2	8	2	12	.14	.044	40	18	.58	35	.01	4	1.28	.01	.08	3	7

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: SILT AU** ANALYSIS BY FA/ICP FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: JUN 22 1992 DATE REPORT MAILED: June 30/92 SIGNED BY.............D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

ACME ANA ICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1 PHONE(253 8 604 17

GEOCHEMICAL ANALYSIS CERTIFICATE

Rio Algom Exploration Inc. PROJECT 9124 File # 92-1796

P.O. Box 10335, 1650 - 60, Vancouver BC V7Y 1G5 Submitted by: W. DONALDSON

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
SS-M-124	1	35	26	96	.8	43	20	744	3.79	10	5	ND	12	15	.5	2	8	10	.32	.044	21	21	.61	33	.01	4	.98	.01	.04	6	6
RE SS-M-129	1	19	11	60	.6	22	12	447	2.33	13	5	ND	13	26	.2	2	2	11	.55	.047	28	15	.54	28	.02	4	.88	.01	.07	3	1
SS-M-125	1	32	15	78	.5	34	16	536	3.32	7	5	ND	15	16	.2	2	2	10	.25	.057	32	20	.49	26	.02	3	.84	.01	.03	2	3
SS-M-126	1	29	21	115	1.2	47	18	1844	3.58	11	5	ND	12	25	.2	3	2	11	.38	.045	25	18	.48	47	.01	5	1.00	.01	.05	5	2
SS-M-127	1	52	34	153	1.1	60	25	865	4.77	10	5	ND	13	25	.7	2	5	24	.31	.058	34	42	.87	91	.02	5	2.09	.01	.13	3	3
SS-M-128	1	58	33	119	1.2	58	21	1765	4.08	17	5	ND	10	45	.3	3	7	15	.88	.075	33	30	.70	72	.02	6	1.52	.01	.08	3	3
SS-M-129	1	22	10	62	.4	24	13	496	2.33	6	5	ND	10	26	.2	2	2	11	.54	.043	25	16	.52	30	.02	5	.86	.01	.06	1	1
SS-M-130	1	28	13	70	.9	32	15	1411	3.20	13	5	ND	13	21	.3	3	6	13	.29	.050	35	19	.48	50	.03	2	.90	.01	.07	1	1

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: SILT AU** ANALYSIS BY FA/ICP FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: JUL 7 1992 DATE REPORT MAILED: July 16/92 SIGNED BY. . . . . D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Rio Algom Exploration Inc. PROJECT 9124 File # 92-1858 Page 1

P.O. Box 10335, 1650 - 60, Vancouver BC V7Y 1G5

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
9+00E A25+00N	1	103	46	207	2.4	42	15	409	3.61	31	5	ND	1	59	1.0	2	3	29	.66	.074	30	27	.27	250	.02	3	1.54	.01	.08	2	15
9+00E A24+50N	1	27	24	108	.7	26	9	241	2.66	21	5	ND	3	10	.3	4	2	18	.12	.048	24	22	.31	125	.01	2	1.05	.01	.06	2	8
9+00E A24+00N	1	8	38	55	1.6	11	5	299	2.55	16	5	ND	2	8	.2	2	2	26	.10	.160	22	20	.13	68	.02	2	1.14	.01	.05	1	9
10+00E A25+00N	1	20	20	82	.1	28	6	129	2.53	25	5	ND	4	8	.2	2	2	22	.09	.062	24	30	.30	90	.01	2	.95	.01	.05	1	21
10+00E A24+50N	1	59	40	159	.7	39	11	270	3.57	35	5	ND	2	27	.2	2	2	25	.27	.041	21	21	.29	168	.01	2	1.41	.01	.07	1	5
10+00E A24+00N	1	30	36	128	.1	26	9	145	4.57	21	5	ND	7	6	.2	2	2	24	.04	.100	23	27	.44	95	.01	2	1.82	.01	.06	1	1
10+00E A23+50N	1	15	32	89	.4	16	6	93	4.03	18	5	ND	5	7	.2	2	2	34	.05	.064	24	25	.30	99	.02	2	1.52	.01	.05	1	3
11+00E A25+00N	1	34	27	102	.3	32	8	129	2.74	26	7	ND	5	9	.2	2	2	17	.08	.051	28	26	.31	125	.01	2	1.04	.01	.06	1	8
11+00E A24+50N	1	21	25	149	.3	31	12	399	2.79	20	5	ND	1	19	.3	2	2	24	.16	.042	17	30	.31	104	.02	2	1.09	.01	.05	1	14
11+00E A24+00N	1	40	70	141	.4	39	22	580	3.98	34	13	ND	2	17	.2	2	4	26	.20	.068	20	33	.64	163	.01	2	2.08	.01	.09	1	1
11+00E A23+50N	3	113	65	224	1.5	56	16	240	5.45	64	7	ND	5	13	.2	2	2	27	.09	.201	22	26	.30	105	.01	2	1.50	.01	.06	1	4
11+00E A23+00N	1	28	33	99	.7	25	8	140	3.65	22	5	ND	8	11	.2	2	2	24	.12	.086	31	23	.47	114	.01	2	1.46	.01	.06	1	4
11+00E A22+50N	1	83	47	208	2.4	62	19	771	4.58	39	5	ND	3	40	1.1	2	2	22	.76	.113	26	29	.57	177	.01	2	2.06	.01	.13	2	2
11+00E A22+00N	1	74	53	211	.8	44	18	1083	3.77	29	8	ND	1	34	1.3	2	3	19	.58	.121	15	22	.47	112	.01	2	1.45	.01	.08	1	1
11+00E A21+50N	1	14	35	64	.5	11	4	218	2.23	14	5	ND	1	10	.2	2	2	21	.08	.165	20	16	.14	104	.02	3	.94	.01	.05	1	6
12+00E A25+00N	1	41	32	136	.9	50	10	138	3.77	42	5	ND	7	12	.2	2	2	22	.11	.070	25	41	.50	130	.01	2	1.33	.01	.06	1	12
12+00E A24+50N	1	57	44	227	2.4	77	15	289	3.97	43	5	ND	3	33	.3	2	2	26	.39	.064	20	42	.63	138	.01	2	1.68	.01	.06	2	1
12+00E A24+00N	2	30	20	105	.2	27	7	130	3.22	31	5	ND	5	7	.2	2	2	24	.07	.034	22	20	.29	98	.01	2	1.27	.01	.04	1	51
12+00E A23+50N	1	21	20	120	.1	25	7	134	2.80	22	5	ND	5	9	.2	2	2	20	.09	.052	27	19	.31	120	.01	2	1.10	.01	.06	1	45
12+00E A23+00N	1	37	34	192	.2	36	11	190	4.86	30	5	ND	7	11	.2	2	2	27	.12	.067	25	28	.45	127	.01	2	1.78	.01	.06	1	5
12+00E A22+50N	1	98	74	346	2.0	68	30	3170	5.88	43	5	ND	5	43	2.6	2	2	30	.88	.148	18	31	.67	207	.02	2	2.44	.01	.13	2	5
12+00E A22+00N	1	44	34	139	.2	31	10	214	4.76	24	5	ND	6	11	.2	2	2	24	.11	.137	24	27	.49	91	.01	2	1.53	.01	.06	1	1
12+00E A21+50N	1	31	40	100	.6	21	7	174	4.20	31	5	ND	3	10	.3	2	2	22	.15	.156	18	18	.22	91	.02	2	1.36	.01	.06	1	1
13+00E A25+00N	1	21	30	191	.8	41	14	270	3.51	27	5	ND	7	25	.2	2	2	35	.25	.030	22	43	.83	120	.02	2	1.94	.01	.05	2	6
13+00E A24+50N	1	52	79	159	.1	39	12	139	4.22	100	5	ND	6	5	.2	2	2	24	.03	.039	29	18	.12	55	.01	2	1.03	.01	.03	1	1
13+00E A24+00N	1	21	62	62	.4	15	5	88	1.80	41	5	ND	5	5	.2	2	2	17	.05	.032	31	9	.06	35	.01	2	.67	.01	.02	1	29
13+00E A23+50N	1	107	34	193	.3	49	20	169	5.29	86	5	ND	5	14	.2	2	2	25	.17	.065	21	15	.12	89	.01	2	.84	.01	.04	2	21
13+00E A23+00N	1	77	166	260	.1	59	14	232	5.34	44	5	ND	7	6	.2	2	2	21	.05	.106	24	30	.46	101	.01	2	1.77	.01	.05	1	8
13+00E A22+50N	1	31	36	138	.5	28	8	155	3.94	33	5	ND	6	11	.2	2	2	23	.13	.079	27	24	.42	91	.01	2	1.26	.01	.06	1	1
13+00E A22+00N	2	91	127	404	2.8	42	11	473	4.01	42	5	ND	4	9	.5	2	2	27	.09	.078	22	17	.10	118	.02	3	.93	.01	.04	1	13
RE 13+00E A23+50N	1	112	37	198	.4	48	20	169	5.32	89	5	ND	6	14	.2	2	2	25	.17	.065	23	14	.12	93	.01	2	.89	.01	.04	1	31
13+00E A21+50N	1	57	41	199	2.0	46	15	637	3.89	28	5	ND	6	22	.9	2	2	20	.37	.062	22	25	.60	115	.01	2	1.76	.01	.08	1	1
14+00E A25+00N	1	15	34	98	.8	20	7	143	2.34	35	9	ND	8	10	.2	2	2	26	.10	.027	24	14	.07	128	.02	2	.68	.01	.03	2	7
14+00E A24+50N	1	15	30	84	.2	19	6	206	3.82	65	5	ND	4	9	.2	2	2	26	.16	.036	24	12	.05	81	.01	3	.73	.01	.02	2	1
14+00E A24+00N	1	39	47	128	1.2	32	10	188	6.21	100	5	ND	6	6	.2	2	2	30	.04	.206	20	24	.28	73	.01	2	1.39	.01	.05	1	30
14+00E A23+50N	3	72	75	169	1.0	37	11	187	5.67	88	5	ND	4	10	.2	2	2	25	.09	.163	20	20	.25	100	.01	2	1.25	.01	.05	1	4
STANDARD C/AU-S	17	56	38	133	6.9	66	31	1056	4.01	41	22	7	39	53	16.8	14	19	56	.49	.090	35	56	.89	182	.09	34	2.00	.07	.15	11	49

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: SOIL AU** ANALYSIS BY FA/ICP FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: JUL 10 1992 **DATE REPORT MAILED:** July 17/92 **SIGNED BY**.......D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
11+00E B21+00N	1	146	75	240	5.1	75	15	2737	3.75	44	7	ND	4	89	1.8	2	2	17	1.90	.150	25	25	.58	137	.01	5	1.65	.01	.07	2	13
11+00E B20+50N	1	1020	195	664	5.9	86	33	1319	7.03	214	8	ND	9	81	2.3	6	2	24	1.53	.131	37	28	.68	109	.02	4	2.62	.01	.13	3	16
11+00E B20+00N	1	54	33	111	.5	51	16	586	3.53	22	5	ND	12	19	.2	2	2	18	.28	.087	32	35	.67	56	.02	2	1.18	.01	.06	1	6
11+00E B19+50N	1	52	40	168	.6	53	18	566	4.35	36	5	ND	9	18	.4	2	2	21	.27	.074	27	34	.60	71	.02	3	1.39	.01	.07	1	12
11+00E B19+00N	1	70	64	295	1.4	63	33	777	5.88	52	5	ND	6	35	.7	2	2	26	.57	.081	19	38	.55	80	.02	2	1.90	.01	.06	1	12
11+00E B18+50N	1	47	46	158	.6	54	19	320	4.68	38	5	ND	8	15	.2	2	2	24	.20	.044	26	35	.55	78	.02	4	1.62	.01	.06	1	78
11+00E B18+00N	1	31	28	127	.7	42	13	387	3.56	22	5	ND	6	19	.2	2	2	18	.30	.063	24	28	.51	69	.02	2	1.34	.01	.08	1	8
12+00E B21+00N	1	59	47	224	1.2	63	18	803	4.50	30	5	ND	7	31	.2	2	2	20	.52	.083	25	33	.57	94	.01	4	1.75	.01	.12	1	13
12+00E B20+50N	1	49	33	142	1.8	52	12	247	4.03	27	5	ND	10	14	.2	2	2	18	.22	.080	24	35	.58	44	.02	3	1.58	.01	.04	1	6
12+00E B20+00N	1	31	47	113	.1	34	15	437	3.70	10	5	ND	13	10	.2	2	2	16	.07	.018	37	24	.49	64	.02	4	1.38	.01	.10	1	8
12+00E B19+00N	1	24	22	128	.5	34	12	403	3.35	20	5	ND	9	11	.2	2	2	18	.11	.029	31	29	.46	66	.01	2	1.31	.01	.06	1	11
12+00E B18+50N	1	65	45	146	.5	67	22	678	4.65	34	5	ND	14	21	.3	2	2	22	.30	.071	32	36	.71	78	.02	4	1.56	.01	.14	1	9
12+00E B18+00N	1	115	63	198	2.3	96	32	921	6.53	69	5	ND	9	30	.2	2	2	27	.48	.124	31	40	.96	68	.02	3	1.74	.01	.08	1	20
13+00E B20+00N	1	44	51	267	1.1	39	16	810	4.89	39	5	ND	8	25	1.4	2	2	25	.33	.079	22	34	.46	57	.02	3	1.30	.01	.05	1	5
13+00E B19+50N	1	70	59	159	.5	68	22	642	5.36	48	5	ND	10	15	.2	2	2	23	.19	.079	29	41	.66	71	.02	3	1.51	.01	.08	1	16
13+00E B18+50N	1	64	42	176	1.0	61	22	841	5.21	56	5	ND	4	23	.2	2	2	32	.35	.106	18	41	.66	106	.02	3	1.54	.01	.07	1	11
13+00E B18+00N	1	43	30	119	.3	36	10	205	5.33	39	5	ND	6	15	.2	2	2	25	.18	.110	25	34	.31	49	.02	3	1.17	.01	.05	1	6
13+00E B17+50N	1	41	47	123	.4	33	11	333	3.41	31	5	ND	5	14	.2	2	2	16	.22	.041	26	22	.29	46	.01	3	1.00	.01	.06	1	12
13+00N C18+00E	1	54	48	181	1.1	36	10	430	4.12	65	5	ND	4	6	.2	3	2	33	.05	.077	33	17	.10	55	.02	4	.57	.01	.03	1	421
13+00N C18+50E	1	74	48	190	2.0	38	13	561	5.11	89	5	ND	3	10	.3	2	2	56	.15	.069	18	32	.59	68	.03	4	1.13	.01	.03	1	16
13+00N C19+00E	1	317	70	260	8.1	85	25	1396	2.54	39	5	ND	3	125	2.6	2	2	8	2.79	.095	9	13	.56	87	.01	6	.67	.01	.02	1	7
13+00N C20+00E	1	101	65	223	.3	36	10	210	5.05	101	5	ND	8	8	.2	2	2	21	.06	.032	33	24	.10	27	.01	3	.60	.01	.03	1	9
RE 13+00N C18+00E	1	54	46	193	1.0	38	11	451	4.31	73	5	ND	3	6	.2	2	2	34	.05	.080	33	18	.11	56	.02	4	.57	.01	.03	1	447
13+00N C20+50E	1	84	49	236	.7	81	21	461	4.98	28	5	ND	10	18	.2	2	2	19	.24	.058	33	28	.48	61	.02	2	1.30	.01	.07	1	13
13+00N C21+00E	1	44	30	108	2.3	28	7	589	2.12	29	5	ND	3	38	.5	2	2	15	.71	.047	14	19	.14	102	.01	4	.68	.01	.02	1	5
12+00N C17+00E	1	47	49	166	.1	67	19	498	4.57	39	5	ND	14	8	.2	2	2	16	.07	.033	45	45	.52	71	.01	3	1.24	.01	.06	1	8
12+00N C17+50E	1	43	48	183	.1	82	18	438	4.82	47	5	ND	14	11	.2	2	2	19	.12	.041	42	50	.66	69	.01	3	1.43	.01	.06	1	18
12+00N C18+00E	1	52	176	261	1.1	51	19	388	6.08	65	5	ND	7	23	.4	2	2	17	.36	.061	28	33	.29	51	.01	3	1.28	.01	.02	1	15
12+00N C19+00E	1	138	119	268	1.3	71	30	1138	6.43	69	5	ND	10	24	.2	2	2	17	.32	.070	27	35	.46	61	.01	5	1.24	.01	.05	2	15
12+00N C19+50E	1	77	42	155	.3	124	39	844	4.77	53	5	ND	15	18	.2	2	2	15	.17	.077	32	41	.52	45	.01	3	.93	.01	.03	1	11
12+00N C20+50E	2	100	134	365	.9	64	20	841	5.24	103	5	ND	6	17	.3	2	3	17	.19	.057	27	32	.33	53	.01	3	1.22	.01	.05	1	31
12+00N C21+00E	1	56	65	186	1.9	33	11	285	5.74	73	5	ND	6	10	.2	2	2	26	.10	.156	29	32	.33	65	.01	4	1.06	.01	.04	1	40
11+00N C17+00E	1	33	55	170	.1	33	10	161	4.76	50	5	ND	7	8	.2	2	2	32	.07	.033	34	38	.24	94	.02	2	1.15	.01	.02	1	4
11+00N C17+50E	1	78	740	627	1.0	64	31	1306	7.91	269	5	ND	7	34	.7	2	16	19	.49	.092	22	34	.37	42	.01	3	1.28	.01	.03	1	18
11+00N C18+00E	1	53	66	175	.3	45	11	197	5.25	41	5	ND	11	6	.2	2	2	14	.04	.029	41	50	.36	62	.01	3	1.12	.01	.03	1	18
11+00N C18+50E	1	54	94	354	3.3	61	23	737	5.90	50	5	ND	6	43	.4	2	2	24	.58	.111	20	45	.18	75	.01	3	2.07	.01	.03	1	16
11+00N C19+00E	1	30	49	193	2.2	25	9	678	3.39	34	5	ND	8	13	.2	2	2	17	.16	.052	32	28	.12	91	.01	3	.83	.01	.04	1	4
11+00N C19+50E	1	100	71	299	.8	45	19	631	7.53	37	5	ND	7	13	.2	2	2	18	.09	.165	32	26	.22	86	.01	3	1.08	.01	.02	1	4
STANDARD C/AU-S	18	58	39	130	6.9	67	29	1032	3.91	38	21	7	38	53	19.0	18	19	55	.47	.089	37	56	.87	180	.09	33	1.89	.07	.15	10	49

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
11+00N C20+00E	14	104	379	293	4.8	67	14	352	8.36	99	6	ND	7	113	.8	2	2	23	.23	.379	16	33	.15	91	.01	2	1.74	.01	.05	1	25
11+00N C20+50E	2	120	67	251	.2	46	15	259	5.55	121	5	ND	8	21	.2	2	3	19	.30	.130	32	26	.11	35	.01	3	.64	.01	.04	1	32
11+00N C21+00E	2	82	92	378	.1	97	31	510	7.26	64	5	ND	11	12	.2	2	2	19	.10	.067	24	39	.47	72	.01	2	1.76	.01	.04	1	15
10+00N C17+50E	1	158	102	412	1.4	64	27	1583	5.98	49	7	ND	6	34	.7	2	5	21	.42	.076	20	37	.46	58	.02	2	1.47	.01	.05	1	15
10+00N C18+00E	1	52	42	220	1.3	61	17	955	4.38	35	5	ND	6	22	.4	2	2	32	.30	.053	22	60	.68	80	.02	2	1.56	.01	.05	1	6
10+00N C18+50E	1	87	60	188	.4	58	19	417	6.36	50	5	ND	9	9	.2	2	2	22	.06	.041	29	39	.31	60	.01	2	1.27	.01	.03	1	6
10+00N C19+50E	7	33	165	369	.2	34	11	249	7.57	57	6	ND	24	17	.2	2	2	2	.15	.120	26	5	.03	33	.01	2	.54	.01	.01	1	18
10+00N C20+00E	2	55	45	137	.1	31	7	114	3.68	42	5	ND	8	6	.2	2	2	19	.03	.062	38	24	.07	62	.01	2	.79	.01	.02	1	7
10+00N C20+50E	2	61	82	218	.6	34	9	201	5.23	50	5	ND	9	8	.2	2	2	19	.06	.091	30	36	.24	88	.01	2	1.14	.01	.03	1	11
10+00N C21+00E	1	27	31	131	.5	27	10	349	3.29	15	6	ND	8	26	.2	2	2	19	.29	.034	31	20	.13	65	.01	2	1.20	.01	.03	1	8
10+00N C21+50E	1	97	38	201	1.0	43	11	174	4.92	62	5	ND	12	6	.2	2	2	23	.02	.033	37	36	.24	94	.01	2	1.38	.01	.03	1	22
10+00N C22+00E	1	122	73	235	.4	71	18	238	5.62	72	5	ND	14	7	.2	3	2	19	.04	.058	32	41	.39	81	.01	2	1.63	.01	.03	1	4
9+00N C17+50E	1	32	15	150	.3	29	10	196	4.91	25	5	ND	16	6	.2	2	2	18	.03	.042	51	34	.26	45	.01	2	1.15	.01	.03	1	68
9+00N C18+00E	1	84	67	351	1.8	113	33	1672	7.65	64	5	ND	9	25	.2	2	2	22	.28	.070	25	48	.49	81	.02	2	1.83	.01	.06	1	6
9+00N C18+50E	1	29	22	89	.4	28	7	136	3.92	26	5	ND	10	7	.4	3	2	17	.08	.046	43	31	.14	44	.01	2	.82	.01	.03	1	3
9+00N C19+00E	1	44	30	163	.6	100	22	339	5.99	44	5	ND	10	15	.2	2	2	15	.14	.043	35	43	.30	46	.01	2	1.39	.01	.03	1	5
9+00N C19+50E	2	24	26	103	.1	27	9	486	3.13	24	6	ND	10	5	.2	2	2	20	.01	.035	43	35	.14	59	.01	2	1.03	.01	.03	1	20
9+00N C20+00E	1	21	19	116	.9	30	10	607	3.82	23	5	ND	10	7	.2	2	2	22	.04	.070	39	40	.27	62	.01	3	1.06	.01	.04	1	7
10+00E E30+00N	1	26	11	92	1.4	24	7	196	2.83	2	5	ND	9	9	.2	3	2	19	.08	.025	37	16	.27	97	.02	2	1.43	.01	.05	1	7
10+00E E29+00N	1	18	15	62	.3	17	7	147	4.13	9	6	ND	9	4	.2	2	2	20	.03	.083	19	19	.28	55	.01	2	1.53	.01	.03	1	2
10+00E E28+50N	1	15	10	81	.1	22	10	265	3.24	3	5	ND	8	7	.2	2	2	18	.07	.035	31	21	.50	87	.01	2	1.57	.01	.05	1	1
RE 9+00N C19+50E	1	25	23	105	.6	26	9	493	3.15	20	5	ND	12	5	.4	2	2	21	.01	.036	44	35	.14	60	.01	2	1.05	.01	.02	1	13
10+00E E28+00N	1	22	26	80	.5	21	26	945	4.10	11	5	ND	4	17	.2	2	2	27	.23	.068	29	23	.41	121	.01	3	1.60	.01	.08	1	5
10+00E E27+50N	1	7	8	52	.1	12	5	119	2.32	4	5	ND	8	6	.2	2	2	14	.07	.018	31	13	.31	56	.01	2	.98	.01	.03	1	5
10+00E E27+00N	1	8	10	53	.3	10	5	118	3.76	4	5	ND	10	3	.2	2	2	24	.02	.034	31	19	.30	43	.01	2	1.65	.01	.02	1	4
10+00E E26+50N	1	10	18	95	.3	15	7	133	4.01	7	5	ND	9	5	.2	2	2	28	.04	.039	32	20	.43	59	.02	2	1.74	.01	.02	1	1
10+00E E26+00N	1	18	22	87	.2	20	8	178	4.92	9	5	ND	9	6	.2	2	2	17	.07	.056	26	25	.48	52	.01	2	1.82	.01	.04	1	1
10+00E E25+50N	1	38	37	264	.8	32	17	650	4.35	9	5	ND	5	14	.2	2	2	27	.22	.052	37	25	.59	122	.02	2	1.83	.01	.03	1	3
10+00E E25+00N	1	24	37	125	1.1	25	15	490	4.45	67	6	ND	6	20	.2	2	2	19	.20	.079	32	23	.55	78	.01	3	1.60	.01	.04	1	3
12+00E E29+50N	1	28	12	123	1.1	26	17	474	4.79	13	5	ND	3	27	.2	2	2	34	.33	.059	24	18	.14	170	.01	2	1.64	.01	.02	1	5
12+00E E29+00N	1	68	23	188	.5	67	30	464	7.93	12	5	ND	14	11	.2	2	2	38	.08	.100	34	28	.38	176	.02	2	2.53	.01	.06	1	3
12+00E E28+50N	1	40	31	145	.8	37	20	362	5.17	13	5	ND	11	9	.2	2	2	28	.08	.047	34	22	.48	98	.03	2	1.86	.01	.04	1	2
12+00E E28+00N	1	31	30	176	.8	34	18	1253	3.84	10	5	ND	11	18	.8	2	2	21	.21	.052	37	24	.46	137	.02	2	1.84	.01	.04	1	4
12+00E E27+50N	1	11	14	60	.5	11	5	212	4.52	5	5	ND	11	5	.6	2	2	17	.03	.030	25	17	.24	36	.01	2	1.27	.01	.03	1	1
12+00E E27+00N	1	15	25	75	.3	15	9	286	7.29	9	5	ND	12	5	.2	2	2	31	.04	.109	21	27	.32	36	.02	2	2.18	.01	.02	1	1
12+00E E26+50N	1	22	27	171	.6	33	14	226	6.27	18	5	ND	12	5	.2	2	2	18	.03	.055	24	33	.77	60	.01	3	2.98	.01	.02	1	1
12+00E E26+00N	1	46	19	95	.7	50	16	198	5.76	21	5	ND	13	4	.2	3	2	28	.02	.065	31	46	.93	66	.01	2	2.67	.01	.02	1	4
STANDARD C/AU-S	18	58	37	134	6.8	66	31	1052	4.01	41	19	7	38	53	16.7	13	19	56	.49	.091	37	56	.89	177	.09	34	1.88	.07	.15	10	48

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

GEOCHEMICAL ANALYSIS CERTIFICATE

Rio Algom Exploration Inc. PROJECT 9124 File # 92-1904 Page 1

P.O. Box 10335, 1650 - 60, Vancouver BC V7Y 1G5

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
SO-M300	1	23	25	87	.1	33	10	312	3.73	2	5	ND	5	6	.2	2	2	17	.06	.037	18	25	.40	65	.02	5	1.39	.01	.02	1	5
SO-M301	1	41	13	80	.3	30	13	181	4.92	4	5	ND	13	4	.2	2	2	17	.03	.058	27	18	.35	20	.01	7	1.07	.01	.05	1	1
SO-M302	1	20	10	67	.2	19	8	206	3.61	2	5	ND	8	4	.2	2	2	16	.03	.052	24	16	.24	38	.01	6	1.28	.01	.02	1	2
SO-M303	1	23	11	98	.1	24	10	310	4.33	2	5	ND	8	4	.2	2	2	16	.03	.072	23	19	.30	41	.01	6	1.25	.01	.02	1	5
SO-M304	1	17	16	89	.1	19	9	374	4.50	2	5	ND	5	4	.2	2	2	18	.02	.105	22	18	.25	37	.02	4	1.05	.01	.01	1	7
SO-M305	1	18	14	107	.1	23	8	214	5.01	2	5	ND	6	5	.2	2	2	19	.03	.088	23	27	.39	55	.02	5	1.42	.01	.01	1	4
RE SO-M310	1	26	17	130	.2	36	13	257	5.20	7	5	ND	11	7	.2	2	2	21	.08	.169	26	26	.37	50	.01	7	1.32	.01	.04	1	5
SO-M306	1	22	25	163	.1	58	13	279	4.37	35	5	ND	4	9	.2	2	2	38	.11	.058	23	91	.71	97	.03	5	1.62	.01	.05	1	3
SO-M307	1	18	36	331	.1	83	21	920	7.13	31	5	ND	1	15	.2	2	2	37	.18	.197	20	70	.41	144	.03	5	1.80	.01	.01	1	1
SO-M308	1	59	66	198	.1	164	30	411	8.35	31	5	ND	8	10	.2	2	2	34	.10	.203	22	82	.55	455	.02	4	1.60	.01	.05	1	5
SO-M309	1	32	18	109	.1	38	14	306	4.92	3	5	ND	10	7	.2	2	2	17	.08	.136	28	28	.48	53	.01	5	1.66	.01	.01	1	12
SO-M310	1	30	16	132	.1	37	14	284	5.28	6	5	ND	10	7	.2	2	2	23	.09	.176	28	29	.39	57	.01	5	1.49	.01	.01	1	6
SO-M311	1	21	13	125	.8	28	13	468	3.65	4	5	ND	10	4	.2	2	2	15	.03	.090	25	23	.34	54	.02	5	1.71	.01	.03	1	5
SO-M312	1	11	12	56	.3	11	6	587	2.76	2	5	ND	6	4	.2	2	2	15	.03	.148	26	15	.18	40	.02	4	1.00	.01	.01	1	2
SO-M313	1	15	12	74	.2	16	6	257	3.15	2	5	ND	8	4	.2	2	2	17	.02	.072	27	18	.21	54	.01	4	1.38	.01	.04	1	2
SO-M314	1	19	11	63	.1	17	6	166	4.40	2	5	ND	7	3	.2	2	2	30	.02	.094	25	17	.21	23	.02	4	1.07	.01	.02	1	3
SO-M315	1	25	11	68	.1	21	8	264	4.33	2	5	ND	8	4	.2	2	2	17	.02	.044	26	18	.31	28	.01	4	1.18	.01	.03	1	1
SO-M316	1	25	12	71	.2	60	10	181	4.04	7	5	ND	9	4	.2	2	2	22	.02	.029	22	48	.37	30	.01	4	1.23	.01	.05	1	1
SO-M317	1	8	9	38	.1	12	4	116	1.46	2	5	ND	3	9	.2	2	3	13	.10	.030	22	11	.16	30	.01	2	.58	.01	.02	1	1
SO-M600	2	31	14	95	.1	23	9	172	5.04	2	5	ND	8	4	.2	2	2	16	.02	.080	24	20	.33	30	.01	4	1.54	.01	.01	1	4
SO-M602	1	35	14	93	.1	30	12	268	4.85	2	5	ND	11	5	.2	2	2	14	.04	.083	24	20	.40	39	.01	5	1.35	.01	.02	1	8
SO-M603	1	35	19	89	.2	26	12	303	6.71	3	5	ND	13	6	.2	2	2	26	.06	.131	25	22	.31	46	.02	5	1.14	.01	.04	1	3
SO-M604	1	37	21	106	.1	29	13	475	5.07	2	5	ND	11	6	.2	2	2	15	.05	.082	26	22	.34	46	.01	3	1.62	.01	.01	1	1
SO-M605	1	56	23	116	.7	27	14	604	4.11	11	5	ND	8	14	.3	3	2	15	.22	.061	21	18	.35	86	.01	4	1.05	.01	.06	1	4
SO-M606	1	77	33	209	.9	31	10	312	3.39	16	5	ND	8	22	.8	2	2	22	.28	.036	22	25	.34	152	.01	5	1.39	.01	.08	1	4
SO-M607	1	56	24	170	.4	38	11	249	3.41	6	5	ND	8	19	.3	2	2	21	.22	.030	22	34	.58	80	.02	3	1.51	.01	.08	1	6
SO-M608	1	64	37	143	.1	60	15	535	3.96	7	5	ND	9	11	1.1	2	2	20	.11	.027	47	38	.65	101	.02	4	1.77	.01	.05	1	1
SO-M609	1	46	126	158	.4	45	15	464	4.90	45	5	ND	9	15	.3	2	2	23	.16	.048	25	38	.51	117	.02	4	2.15	.01	.07	1	2
SO-M610	1	22	29	121	.3	31	11	336	3.50	7	5	ND	8	12	.2	2	2	17	.12	.044	27	35	.57	74	.01	3	1.51	.01	.05	1	8
SO-M611	1	54	50	615	1.2	44	19	663	4.24	36	5	ND	6	25	.8	3	2	19	.34	.064	23	34	.49	78	.02	5	1.98	.01	.05	1	7
SO-M612	1	8	12	52	.2	11	6	285	2.36	3	5	ND	8	5	.2	3	4	14	.04	.056	26	11	.19	29	.01	2	.76	.01	.03	1	5
SO-M613	1	58	21	115	.2	41	15	315	5.02	8	5	ND	15	7	.2	2	2	12	.09	.076	27	19	.44	34	.01	3	1.15	.01	.04	1	3
SO-M614	1	34	32	101	.4	35	10	211	3.95	18	5	ND	11	8	.2	2	2	12	.07	.032	38	27	.56	40	.01	4	1.43	.01	.05	1	5
SO-M615	1	71	18	101	.1	74	22	1085	3.73	8	5	ND	6	29	.6	2	2	20	.46	.059	25	29	.60	68	.02	4	1.48	.01	.06	1	2
SO-M616	1	36	19	129	.1	32	15	775	7.52	5	5	ND	6	13	.2	2	2	17	.18	.093	29	27	.56	32	.01	4	1.80	.01	.01	1	7
SO-M617	1	8	6	60	.1	16	6	183	4.59	15	5	ND	9	4	.2	2	2	18	.03	.066	33	23	.50	35	.01	3	1.52	.01	.04	1	1
SO-M618	1	27	13	106	.1	31	15	301	5.43	4	5	ND	9	23	.2	2	2	16	.25	.077	58	28	.65	45	.01	4	1.96	.01	.04	1	4
STANDARD C/AU-S	17	57	39	130	7.4	72	30	1023	3.92	38	19	7	36	52	17.8	13	19	56	.47	.089	36	56	.87	175	.09	34	1.86	.08	.14	11	48

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: SOIL AU** ANALYSIS BY FA/ICP FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: JUL 14 1992 **DATE REPORT MAILED:** July 21/92 **SIGNED BY** ...... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
SO-M619	2	20	6	33	.1	36	9	137	2.89	2	5	ND	8	8	.2	2	2	18	.06	.029	32	24	.32	31	.01	5	.92	.01	.02	1	6
SO-M620	1	8	28	118	.9	16	6	153	3.09	44	5	ND	15	9	.2	2	2	15	.11	.155	32	17	.40	45	.01	4	1.14	.01	.08	1	2
SO-M621	1	7	14	44	.9	9	3	70	3.27	14	7	ND	12	3	.2	4	2	20	.02	.084	30	10	.20	34	.01	4	.99	.01	.07	2	2
SO-M622	1	2	7	22	.3	1	1	23	.27	2	5	ND	6	8	.2	2	2	3	.05	.016	30	3	.04	36	.01	2	.69	.01	.04	2	1
SO-M623	1	9	10	30	.5	10	3	111	1.56	5	5	ND	9	6	.2	2	2	19	.05	.025	23	19	.26	46	.01	4	1.10	.01	.04	1	4
SO-M624	1	30	35	101	1.2	21	9	206	6.20	14	5	ND	11	5	.7	2	2	31	.03	.102	21	27	.44	45	.01	6	2.02	.01	.05	1	6
SO-M625	1	16	25	115	.9	17	6	168	6.86	2	5	ND	11	3	.2	2	2	22	.01	.089	24	31	.56	41	.01	5	2.32	.01	.05	1	4
SO-M626	1	10	26	81	.3	12	5	314	3.63	2	5	ND	8	4	.2	2	2	19	.04	.052	22	24	.43	51	.01	3	1.74	.01	.04	1	6
SO-M627	1	35	36	103	.7	34	11	246	4.07	9	5	ND	9	10	.2	2	4	26	.17	.060	38	26	.55	108	.01	3	2.30	.01	.07	1	1
RE SO-M631	1	9	24	45	.5	9	4	263	3.54	10	5	ND	8	4	.2	2	2	26	.03	.110	24	16	.28	36	.01	3	1.23	.01	.06	1	2
SO-M628	1	6	19	41	1.7	9	4	93	2.51	2	35	ND	13	3	.2	3	3	21	.02	.031	27	14	.32	33	.01	4	1.32	.01	.11	2	1
SO-M629	1	8	15	53	.1	11	5	151	2.73	5	5	ND	6	4	.2	2	2	28	.03	.040	25	17	.37	42	.01	3	1.36	.01	.03	1	1
SO-M630	1	14	35	60	.4	13	5	163	3.32	9	5	ND	10	5	.2	2	2	20	.05	.045	25	19	.44	61	.01	4	1.76	.01	.08	1	1
SO-M631	1	5	24	45	.7	7	3	254	3.43	10	6	ND	9	3	.2	2	2	26	.02	.107	23	15	.27	32	.01	3	1.18	.01	.07	1	1
SO-M632	1	25	24	83	.4	26	9	223	4.67	5	5	ND	10	7	.2	2	2	18	.11	.061	26	27	.72	48	.01	4	2.05	.01	.06	1	6
SO-M633	1	11	17	71	.1	19	7	147	6.41	2	5	ND	8	3	.2	2	2	21	.02	.046	20	27	.53	41	.01	2	2.09	.01	.03	1	4
SO-M634	1	17	14	72	.2	16	7	218	4.84	12	5	ND	6	5	.2	2	2	37	.05	.036	19	19	.28	57	.03	6	1.13	.01	.04	1	2
SO-M635	1	17	12	52	.5	15	6	134	2.64	16	5	ND	5	4	.2	3	2	40	.03	.044	22	13	.11	32	.03	5	.62	.01	.06	1	6
SO-M636	1	22	29	71	2.4	18	9	640	3.51	32	5	ND	2	6	.2	2	2	42	.02	.054	16	22	.06	33	.03	4	.63	.01	.06	1	2
SO-M637	1	59	30	106	.9	66	22	614	4.74	12	5	ND	12	32	.2	3	2	41	.47	.072	29	86	1.05	92	.05	6	1.60	.01	.17	1	2
SO-M638	1	63	34	110	.4	105	34	781	5.33	4	5	ND	13	85	.2	2	2	67	1.31	.092	29	131	1.56	138	.10	4	2.06	.01	.30	1	4
12+00N C18+50E	1	29	24	141	.2	29	9	162	4.23	23	5	ND	9	9	.2	2	2	22	.09	.021	32	33	.27	76	.01	6	1.07	.01	.04	1	2
STANDARD C/AU-S	17	58	39	133	6.9	70	32	1074	3.99	38	19	7	37	54	19.0	13	19	59	.48	.090	39	58	.88	177	.09	35	1.93	.08	.17	10	46

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

ACM... ...AL L...RAT...S L... ... E. ...STI... ST. ...OU... B.C. ...6A ... ...ONE...)25... ...158 ...X(... ...53-...

GEOCHEMICAL ANALYSIS CERTIFICATE

Rio Algom Exploration Inc. PROJECT 9124 File # 92-1993

P.O. Box 10335, 1650 - 60, Vancouver BC V7Y 1G5 Submitted by: WILLIAM DONALDSON

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
SO-M-601	1	51	24	102	.1	38	15	300	5.06	8	5	ND	10	8	.2	2	2	18	.11	.107	27	17	.37	90	.01	2	1.00	.01	.04	1	4

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: SOIL AU** ANALYSIS BY FA/ICP FROM 10 GM SAMPLE.

DATE RECEIVED: JUL 21 1992 **DATE REPORT MAILED:** July 27/92 **SIGNED BY**............D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: RIO ALGOM EXPLORATION INC.
P.O. BOX 10335, PACIFIC CENTRE
1650 - 609 GRANVILLE ST.
VANCOUVER, BC
V7Y 1G5

Project : 9124
Comments: CC: WILLIAM DONALDSON

Page Number : 1-A
Total Pages : 1
Certificate Date: 16-JUL-92
Invoice No. : I9217390
P.O. Number :
Account : GZ

CERTIFICATE OF ANALYSIS A9217390

SAMPLE	PREP CODE		Au ppb FA+AA	Ag ppm AAS	Al % (ICP)	Ba ppm (ICP)	Be ppm (ICP)	Bi ppm (ICP)	Ca % (ICP)	Cd ppm (ICP)	Co ppm (ICP)	Cr ppm (ICP)	Cu ppm (ICP)	Fe % (ICP)	K % (ICP)	Mg % (ICP)
15162	205	274	15	2.4	8.62	3610	< 0.5	4	0.04	< 0.5	2	155	139	4.87	3.51	0.76
15163	205	274	< 5	0.4	5.75	1730	< 0.5	4	0.18	1.0	8	131	27	1.47	2.10	0.76
15164	205	274	< 5	< 0.2	11.30	1990	< 0.5	8	0.58	< 0.5	17	121	34	3.78	4.25	0.96
15165	205	274	80	< 0.2	6.81	1210	< 0.5	< 2	7.19	0.5	26	88	28	5.82	1.73	2.69
15166	205	274	< 5	0.2	7.02	1180	< 0.5	< 2	0.41	< 0.5	4	129	2	1.31	1.94	0.28

CERTIFICATION: [signature]

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: RIO ALGOM EXPLORATION INC.
P.O. BOX 10335, PACIFIC CENTRE
1650 - 609 GRANVILLE ST.
VANCOUVER, BC
V7Y 1G5

Project : 9124
Comments: CC: WILLIAM DONALDSON

Page Number : 1-B
Total Pages : 1
Certificate Date: 16-JUL-92
Invoice No. : I9217390
P.O. Number :
Account : GZ

CERTIFICATE OF ANALYSIS A9217390

SAMPLE	PREP CODE		Mn ppm (ICP)	Mo ppm (ICP)	Na % (ICP)	Ni ppm (ICP)	P ppm (ICP)	Pb ppm AAS	Sr ppm (ICP)	Ti % (ICP)	V ppm (ICP)	W ppm (ICP)	Zn ppm (ICP)
15162	205	274	35	17	0.61	5	360	34	98	0.30	835	< 10	64
15163	205	274	55	54	0.57	44	330	14	81	0.21	481	< 10	104
15164	205	274	165	< 1	0.39	39	650	12	133	0.46	95	< 10	96
15165	205	274	1400	< 1	1.40	31	1560	4	247	0.73	198	< 10	94
15166	205	274	545	3	2.25	9	840	32	103	0.08	8	< 10	38

CERTIFICATION: Hart Bichler

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

Rio Algom Exploration Inc. PROJECT 9124 File # 92-2627 Page 1

P.O. Box 10335, 1650 - 60, Vancouver BC V7Y 1G5 Submitted by: WILLIAM DONALDSON

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
A 13+00E PB 22+00N	2	284	1210	1765	11.2	148	50	5334	11.03	82	5	ND	7	30	6.5	2	9	27	1.03	.121	17	23	.62	221	.01	2	1.54	.01	.06	1	36
A 13+00E RS 22+00N	1	237	1566	1999	19.6	116	49	6208	16.01	73	5	ND	1	35	7.2	2	11	36	1.32	.286	14	29	.64	281	.01	2	1.93	.01	.05	1	13
B 11+00E PB 20+50N	1	386	139	432	1.3	53	21	614	5.44	109	5	ND	13	17	1.1	2	5	21	.25	.058	35	32	.85	68	.02	2	1.93	.01	.11	1	5
B 11+00E RS 20+50N	1	1140	231	790	4.6	94	44	1942	9.34	211	5	ND	8	41	2.5	2	3	27	.78	.113	32	34	.90	99	.02	2	3.05	.01	.13	1	17
C 11+00N PB 17+50E	1	101	114	292	.2	86	27	775	5.03	75	5	ND	16	15	.7	2	2	13	.20	.044	42	40	.46	46	.01	3	1.03	.01	.06	1	27
C 11+00N RS 17+50E	1	70	153	397	.5	84	27	766	5.52	123	5	ND	10	17	.7	2	3	15	.25	.050	38	42	.50	36	.01	4	1.08	.01	.04	1	1
C 11+00N PB 20+00E	19	145	418	296	2.1	76	12	201	6.19	112	5	ND	6	113	1.4	4	2	24	.17	.313	21	18	.18	128	.01	3	.79	.01	.07	1	27
C 11+00N RS 20+00E	20	129	619	343	4.9	82	19	392	9.86	148	5	ND	8	163	2.1	2	2	29	.30	.556	18	35	.23	144	.01	2	1.84	.01	.07	1	37
12+00N D 23+50E	1	30	53	106	.6	28	16	374	4.84	13	7	ND	10	20	.2	2	2	17	.19	.045	23	21	.32	61	.01	5	1.35	.01	.06	1	2
12+00N D 24+00E	1	23	28	79	.5	26	15	543	2.72	7	5	ND	6	16	.2	2	2	17	.17	.027	23	19	.29	64	.01	2	1.23	.01	.06	1	4
12+00N D 24+50E	1	51	52	170	1.3	60	26	1081	5.89	7	6	ND	10	42	.7	2	2	22	.52	.075	31	30	.49	108	.02	5	2.23	.01	.14	1	1
12+00N D 25+00E	1	41	47	112	.9	38	23	845	4.72	6	5	ND	4	37	.5	2	3	17	.49	.082	31	22	.41	69	.02	2	1.58	.01	.08	1	3
12+00N D 25+50E	1	65	92	121	1.6	55	17	238	3.97	5	8	ND	13	27	.3	2	2	18	.34	.059	58	31	.48	97	.01	5	2.23	.01	.11	1	7
12+00N D 26+00E	1	34	35	125	.2	35	16	798	4.13	8	5	ND	7	33	.5	2	2	18	.47	.051	31	26	.48	90	.02	2	1.65	.01	.08	1	4
12+00N D 26+50E	1	34	28	90	.3	34	17	475	3.72	7	5	ND	7	25	.6	2	2	19	.31	.037	26	22	.37	63	.02	4	1.23	.01	.07	1	4
12+00N D 27+00E	1	28	21	90	.4	32	14	737	3.21	6	5	ND	3	30	.5	2	2	19	.39	.045	25	23	.41	90	.02	4	1.30	.01	.08	1	4
12+00N D 27+50E	1	23	21	86	.1	30	17	446	3.10	5	5	ND	6	15	.3	2	2	22	.13	.031	29	30	.54	103	.02	2	1.51	.01	.10	1	3
12+00N D 28+00E	1	41	22	113	.7	44	17	871	3.97	3	5	ND	5	30	.7	2	2	22	.32	.056	27	32	.58	125	.02	4	1.78	.01	.11	1	4
12+00N D 28+50E	1	44	31	106	.3	37	29	631	4.47	14	6	ND	15	10	.2	2	2	10	.10	.046	30	24	.78	42	.01	2	1.87	.01	.05	1	3
12+00N D 29+00E	1	23	21	100	.2	38	14	398	4.09	3	5	ND	7	13	.6	2	2	23	.12	.031	27	35	.67	90	.01	2	1.80	.01	.09	1	4
12+00N D 30+00E	1	25	19	103	.5	27	14	356	4.64	13	5	ND	8	26	.6	2	2	16	.27	.047	26	28	.61	83	.01	2	1.59	.01	.07	1	4
12+00N D 30+50E	1	12	14	63	.1	14	9	171	4.30	6	5	ND	11	6	.2	2	2	24	.03	.052	35	20	.40	36	.01	4	1.38	.01	.04	1	1
12+00N D 31+00E	1	23	29	95	.3	29	12	257	4.67	3	5	ND	10	6	.2	2	6	16	.05	.058	28	28	.49	54	.01	3	1.60	.01	.05	2	2
12+00N D 31+50E	1	24	25	82	.5	26	13	245	4.53	9	5	ND	10	7	.2	2	2	17	.07	.025	25	23	.45	48	.01	3	1.46	.01	.04	1	6
12+00N D 32+00E	1	12	13	88	.2	24	13	266	3.87	2	5	ND	11	7	.4	2	2	16	.05	.037	27	27	.53	69	.01	3	1.85	.01	.05	1	6
11+00N D 23+50E	1	30	33	114	.1	31	15	1248	3.66	3	5	ND	8	18	.4	2	4	12	.19	.046	26	18	.38	73	.01	2	1.35	.01	.08	1	11
11+00N D 24+00E	1	14	12	55	.1	11	7	445	2.32	5	5	ND	4	10	.2	2	2	14	.14	.044	25	11	.18	23	.02	7	.57	.01	.05	1	1
11+00N D 24+50E	1	36	33	101	.7	31	19	991	3.84	4	5	ND	5	47	.4	2	2	18	.49	.080	43	22	.30	109	.02	2	1.71	.01	.08	1	7
11+00N D 25+00E	1	16	22	67	.2	17	10	365	2.43	2	5	ND	5	19	.2	2	4	17	.24	.030	25	14	.21	54	.01	2	.87	.01	.05	1	13
11+00N D 25+50E	1	29	37	93	.4	30	15	907	3.40	6	5	ND	4	31	.2	2	2	14	.45	.048	24	18	.35	65	.02	4	1.19	.01	.07	1	1
11+00N D 26+00E	1	28	48	98	.2	28	19	773	3.75	4	5	ND	4	21	.4	2	2	18	.26	.042	28	20	.36	60	.02	3	1.20	.01	.07	1	1
11+00N D 26+50E	1	24	30	89	.1	30	14	342	3.95	7	5	ND	4	17	.3	2	2	20	.17	.039	24	23	.34	58	.02	2	1.28	.01	.07	1	1
11+00N D 27+00E	1	31	19	98	.1	26	15	295	4.78	16	5	ND	13	13	.2	2	5	14	.15	.039	41	19	.51	45	.01	2	1.30	.01	.05	1	2
RE 11+00N D 25+00E	1	17	24	69	.1	18	12	352	2.59	5	5	ND	5	19	.2	2	2	17	.24	.030	25	15	.23	54	.01	4	.92	.01	.05	1	39
11+00N D 27+50E	1	9	9	35	.2	8	5	99	1.53	10	5	ND	10	10	.2	2	7	14	.13	.024	39	8	.15	25	.01	4	.55	.01	.04	1	4
11+00N D 28+00E	1	17	19	77	.4	20	12	490	2.42	2	5	ND	4	26	.3	2	2	17	.32	.038	21	17	.33	82	.01	3	1.03	.01	.06	1	4
11+00N D 28+50E	1	8	13	51	.1	11	6	191	1.88	8	5	ND	9	8	.2	2	2	13	.08	.019	34	11	.25	30	.01	3	.67	.01	.06	1	1
STANDARD C/AU-S	19	58	39	133	7.3	70	32	1066	3.96	38	18	7	39	52	19.4	15	19	58	.50	.088	39	61	.94	182	.08	34	1.93	.06	.14	11	48

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: SOIL AU** ANALYSIS BY FA/ICP FROM 10 GM SAMPLE. Samples beginning 'RE' are duplicate samples.

DATE RECEIVED: AUG 18 1992 **DATE REPORT MAILED:** Aug 27/92 **SIGNED BY** .... D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
11+00N D 29+00E	1	25	21	88	.3	26	14	482	3.10	10	5	ND	16	15	.2	2	2	16	.14	.052	30	24	.49	56	.01	3	1.20	.01	.06	1	3
RE 11+00N D 32+00E	1	21	27	78	.4	18	14	340	3.66	10	5	ND	11	6	.2	2	2	13	.06	.030	26	20	.34	39	.01	2	1.48	.01	.04	1	1
11+00N D 29+50E	1	29	29	103	.7	31	18	344	5.40	15	5	ND	11	5	.2	2	2	20	.04	.055	25	27	.49	48	.02	3	1.76	.01	.06	1	1
11+00N D 30+50E	1	20	14	78	.6	23	11	362	4.00	8	5	ND	11	8	.2	2	2	20	.07	.049	33	25	.52	55	.01	2	1.37	.01	.07	1	1
11+00N D 31+00E	1	23	14	109	.8	32	14	567	3.94	3	5	ND	8	14	.2	2	2	24	.12	.038	27	37	.70	100	.01	2	1.89	.01	.10	1	1
11+00N D 31+50E	1	30	43	94	.3	27	13	303	5.56	10	6	ND	10	12	.2	2	2	21	.15	.031	22	31	.43	62	.01	2	1.89	.01	.06	1	7
11+00N D 32+00E	1	23	19	80	.3	20	15	330	3.72	10	5	ND	10	6	.2	2	2	14	.06	.030	28	21	.34	36	.01	2	1.48	.01	.04	1	1
11+00N D 32+50E	1	10	12	50	.5	11	7	140	3.21	4	5	ND	9	7	.2	2	2	24	.05	.020	31	19	.28	34	.01	2	1.12	.01	.04	1	3
10+00N D 23+50E	1	7	2	23	.2	8	4	206	.70	8	5	ND	8	7	.6	2	2	6	.09	.017	33	4	.05	23	.01	2	.48	.01	.03	1	1
10+00N D 24+00E	1	5	7	26	.1	5	3	231	.69	3	5	ND	5	11	.2	2	2	9	.13	.014	24	4	.06	22	.01	2	.26	.01	.03	1	1
10+00N D 24+50E	1	24	12	53	.1	14	10	241	2.17	7	5	ND	7	9	.2	2	2	14	.10	.027	28	8	.13	18	.02	2	.34	.01	.02	1	1
10+00N D 25+00E	1	20	22	97	.3	23	13	742	2.89	4	5	ND	7	28	.2	2	2	12	.41	.042	25	18	.41	59	.01	3	1.27	.01	.05	1	1
10+00N D 25+50E	1	33	35	93	.1	29	21	733	3.84	12	5	ND	9	16	.2	2	2	14	.22	.045	30	20	.47	46	.02	2	1.17	.01	.06	1	3
10+00N D 26+50E	1	42	27	93	.1	36	21	938	3.75	14	5	ND	8	17	.2	2	2	11	.22	.043	29	18	.45	47	.01	2	1.13	.01	.07	1	1
10+00N D 27+00E	1	36	30	84	.1	35	18	778	3.53	9	5	ND	10	12	.2	2	2	11	.14	.032	28	18	.45	44	.01	2	1.12	.01	.05	1	5
10+00N D 27+50E	1	17	16	64	.8	18	9	425	3.52	6	5	ND	6	6	.2	2	2	22	.05	.051	26	23	.35	35	.01	2	1.14	.01	.06	1	1
10+00N D 28+00E	1	25	17	76	.1	21	11	229	4.18	10	5	ND	8	6	.3	2	4	19	.06	.038	29	21	.35	28	.01	2	1.16	.01	.05	1	1
10+00N D 28+50E	1	22	20	96	.5	30	13	328	3.46	9	5	ND	10	8	.2	2	2	19	.09	.028	26	28	.47	57	.01	2	1.56	.01	.08	1	1
10+00N D 29+00E	1	12	17	77	.2	20	12	361	3.67	5	5	ND	7	7	.2	2	2	22	.05	.030	27	28	.45	68	.01	2	1.37	.01	.07	1	3
10+00N D 29+50E	1	30	33	93	.1	30	20	899	3.58	11	5	ND	10	10	.2	2	2	15	.11	.033	29	23	.50	60	.01	2	1.31	.01	.07	1	1
10+00N D 30+00E	1	28	25	98	.4	33	18	871	3.65	15	5	ND	9	13	.2	2	4	17	.18	.042	30	24	.52	65	.01	2	1.39	.01	.09	1	3
10+00N D 30+50E	1	20	37	102	.8	19	13	368	4.56	10	5	ND	8	12	.2	2	2	13	.18	.094	23	23	.47	49	.01	3	1.48	.01	.06	1	6
10+00N D 31+00E	1	16	25	81	.5	17	11	248	4.96	11	5	ND	7	8	.2	2	2	16	.08	.086	24	21	.35	33	.01	2	1.10	.01	.04	1	3
10+00N D 31+50E	1	17	11	66	.1	22	9	212	2.56	8	5	ND	7	7	.2	2	2	18	.07	.015	25	22	.42	37	.02	2	.92	.01	.07	1	4
10+00N D 32+00E	1	21	15	65	.1	26	12	558	2.46	4	5	ND	7	20	.2	2	2	10	.93	.028	22	14	.32	38	.01	2	.87	.01	.04	1	1
SO-M-PB 307	1	58	53	151	.3	125	32	641	6.22	38	5	ND	8	19	.3	3	2	48	.31	.093	33	114	1.17	125	.04	2	2.00	.01	.05	2	2
SO-M-RS 307	1	31	30	184	.1	98	24	325	5.89	35	5	ND	7	11	.2	2	3	38	.12	.084	27	82	.71	111	.02	2	1.57	.01	.04	3	8
SO-M-PB 308	1	69	52	119	.1	137	35	650	6.16	35	5	ND	9	17	.3	2	4	44	.22	.074	43	107	1.13	1302	.03	2	1.70	.01	.06	1	4
SO-M-RS 308	1	47	42	172	.1	141	33	337	6.46	37	5	ND	7	10	.4	2	3	31	.12	.106	24	73	.54	488	.02	3	1.45	.01	.04	1	1
SO-M-PB 606	1	49	24	103	.1	35	15	471	2.97	18	6	ND	10	16	.3	2	2	18	.23	.045	29	30	.58	101	.03	2	1.23	.01	.08	1	1
SO-M-RS 606	1	99	36	184	.5	31	13	381	3.04	18	5	ND	6	22	.9	2	2	21	.33	.030	24	24	.34	159	.02	2	1.32	.01	.07	1	1
SO-M-PB 609	1	27	23	80	.1	33	16	402	2.93	7	5	ND	9	12	.2	2	2	17	.17	.051	30	23	.46	62	.02	5	1.27	.01	.07	1	1
SO-M-RS 609	1	59	245	137	.5	42	19	458	4.35	106	5	ND	8	15	.3	2	2	22	.17	.043	31	36	.49	125	.02	2	1.99	.01	.09	1	6
SO-M-PB 611	1	36	50	227	.7	31	14	310	2.93	39	5	ND	8	14	.3	2	5	14	.21	.057	29	27	.47	64	.01	2	1.16	.01	.06	1	167
SO-M-RS 611	1	58	50	594	.9	43	22	497	3.92	39	5	ND	5	22	.7	2	3	19	.32	.055	27	32	.51	79	.02	2	1.88	.01	.06	1	4
SO-M-639	1	18	8	96	.1	27	14	234	5.43	3	5	ND	11	8	.2	2	4	17	.06	.059	34	29	.67	69	.01	2	2.00	.01	.04	1	2
SO-M-640	1	20	9	85	.1	33	16	245	4.67	6	5	ND	13	5	.2	2	5	21	.03	.060	33	31	.59	52	.01	2	2.42	.01	.05	1	2
STANDARD C/AU-S	19	65	40	134	7.3	71	32	1072	3.96	41	18	7	39	53	19.3	14	19	59	.50	.084	40	61	.94	183	.09	34	1.93	.07	.14	10	48

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

ACME ANALYTICAL

Rio Algom Exploration Inc. PROJECT 9124 FILE # 92-2627

ACME ANALYTICAL

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
SO-M-641	1	11	11	81	.1	23	13	235	4.58	2	5	ND	17	4	.2	2	2	21	.01	.028	28	29	.54	58	.01	3	1.98	.01	.04	1	1
SO-M-642	1	19	16	83	.1	30	14	233	4.40	3	5	ND	12	4	.2	2	2	18	.02	.042	30	30	.67	81	.01	2	2.28	.01	.05	1	1
SO-M-643	1	8	6	71	.1	14	11	269	5.41	2	5	ND	11	8	.2	2	2	20	.13	.086	49	34	.98	30	.01	2	2.24	.01	.03	1	4
SO-M-644	1	27	13	73	.1	19	15	263	6.57	2	5	ND	13	4	.2	2	2	22	.04	.106	41	30	.81	20	.01	2	2.13	.01	.03	1	7
SO-M-645	1	75	27	114	.1	83	28	323	10.01	2	5	ND	21	5	.2	2	3	15	.01	.069	30	31	.93	42	.01	4	3.47	.01	.03	1	4
SO-M-646	1	22	20	58	.9	14	9	286	4.02	2	5	ND	2	9	.2	2	2	23	.03	.164	27	23	.22	61	.01	2	1.21	.01	.04	1	3
SO-M-647	3	16	45	92	.7	21	13	205	7.13	36	5	ND	8	6	.2	2	3	33	.03	.211	21	30	.37	68	.01	4	1.67	.01	.06	1	5
SO-M-648	2	28	66	117	.5	35	16	353	5.66	18	5	ND	10	5	.3	2	2	17	.07	.087	22	35	.62	47	.01	2	2.43	.01	.04	1	3
SO-M-649	1	23	35	113	.3	25	13	508	3.49	9	5	ND	5	27	.2	2	2	23	.26	.058	29	27	.62	188	.01	2	1.81	.01	.06	1	1
SO-M-650	1	16	32	86	.1	32	15	254	3.41	11	5	ND	8	14	.2	2	2	26	.25	.056	28	28	.70	72	.01	2	2.05	.01	.07	1	3
SO-M-651	1	9	32	80	.1	17	10	168	5.05	9	5	ND	9	4	.2	2	2	22	.03	.043	24	29	.57	61	.01	3	2.15	.01	.05	1	6
SO-M-652	1	9	51	105	.1	19	12	211	5.89	15	5	ND	10	7	.2	2	2	32	.12	.150	25	31	.61	74	.01	2	2.37	.01	.05	1	4
SO-M-653	1	15	51	119	.4	25	14	479	4.18	14	5	ND	11	8	.5	2	2	19	.15	.088	26	29	.66	74	.01	2	2.33	.01	.06	1	2
SO-M-654	1	5	20	54	.2	9	6	205	2.24	10	5	ND	6	5	.2	2	2	22	.07	.030	30	15	.30	81	.01	2	1.27	.01	.05	1	3
RE SO-M-659	1	6	32	75	.2	16	9	349	3.68	11	5	ND	9	7	.3	2	2	25	.12	.155	24	25	.52	59	.01	2	2.65	.01	.07	1	2
SO-M-655	1	22	53	91	.9	20	11	206	3.49	20	6	ND	6	22	.2	2	3	29	.37	.049	26	26	.56	169	.01	2	2.10	.01	.08	1	3
SO-M-656	1	7	32	74	.5	16	10	135	5.53	10	5	ND	10	4	.2	2	2	25	.05	.059	23	30	.52	57	.01	2	2.21	.01	.05	1	1
SO-M-657	1	11	37	88	.2	19	11	168	5.87	11	5	ND	12	4	.2	2	2	25	.03	.052	23	29	.56	53	.01	3	2.60	.01	.05	1	7
SO-M-658	1	4	31	51	1.2	8	7	134	2.67	8	5	ND	5	5	.5	2	2	22	.05	.053	24	16	.20	54	.01	2	1.43	.01	.04	1	2
SO-M-659	1	7	30	72	.3	13	9	326	3.51	12	5	ND	9	7	.3	2	2	24	.11	.147	23	25	.49	52	.01	3	2.44	.01	.06	1	2
SO-M-660	1	6	28	77	.1	13	7	144	4.07	11	5	ND	9	5	.2	2	2	30	.05	.069	25	23	.39	73	.01	2	2.00	.01	.06	1	1
SO-M-661	1	8	20	87	.1	22	12	277	3.63	7	5	ND	8	7	.3	2	2	24	.11	.064	27	28	.58	64	.01	3	2.18	.01	.06	1	6
SO-M-662	1	5	26	50	.1	10	6	172	2.80	5	5	ND	6	4	.2	2	2	26	.06	.038	27	19	.35	74	.01	2	1.59	.01	.04	1	1
SO-M-663	1	10	22	63	.1	16	8	161	2.99	7	5	ND	9	5	.3	2	4	20	.07	.042	33	28	.71	59	.01	2	1.94	.01	.07	1	1
SO-M-664	1	13	27	92	.2	19	11	345	4.30	17	5	ND	8	6	.2	2	2	20	.10	.077	26	28	.64	48	.01	4	2.04	.01	.05	1	2
SO-M-665	1	12	25	56	.1	14	8	254	2.73	13	5	ND	8	4	.4	2	2	23	.03	.048	31	17	.40	37	.01	2	1.34	.01	.06	1	6
SO-M-666	1	8	14	65	.3	15	10	927	2.66	9	5	ND	3	8	.4	2	2	27	.15	.063	23	21	.54	104	.01	2	1.45	.01	.07	1	7
SO-M-667	1	3	15	31	.2	6	5	197	1.18	3	5	ND	6	5	.2	2	2	14	.09	.031	29	10	.27	47	.01	2	.97	.01	.05	1	1
SO-M-668	2	80	41	174	1.1	56	25	1229	4.68	20	5	ND	6	35	1.0	2	5	22	.71	.089	55	30	.80	135	.01	4	1.99	.01	.07	1	1
SO-M-669	1	23	21	93	.3	21	13	437	4.08	9	5	ND	4	6	.4	2	2	20	.08	.051	27	31	.58	92	.01	2	2.03	.01	.04	1	2
SO-M-670	1	24	25	88	.6	18	11	316	3.45	16	5	ND	3	6	.2	2	2	23	.05	.052	27	29	.62	83	.01	4	1.77	.01	.05	1	2
SO-M-671	1	22	31	109	1.3	22	13	497	6.32	16	5	ND	6	6	.2	2	2	36	.04	.065	25	32	.47	94	.01	5	1.91	.01	.04	1	11
SO-M-672	1	12	15	119	.3	31	16	321	6.15	11	5	ND	10	3	.2	2	2	24	.05	.036	28	38	.95	40	.01	2	2.87	.01	.04	1	3
SO-M-673	1	24	13	115	.4	35	24	885	8.07	2	5	ND	8	6	.3	2	2	25	.06	.180	44	36	.65	51	.01	3	2.19	.01	.03	1	1
SO-M-674	1	49	35	113	.1	41	20	299	7.50	15	5	ND	15	34	.2	2	2	24	.03	.074	39	38	.86	119	.01	3	2.91	.01	.06	1	5
SO-M-675	1	18	25	97	.1	22	18	322	7.85	8	5	ND	12	5	.2	2	2	36	.04	.078	32	35	.73	58	.01	2	2.83	.01	.05	1	4
SO-M-676	1	22	19	96	.1	30	18	254	6.52	20	5	ND	13	4	.2	2	2	23	.02	.068	32	35	.72	63	.01	3	2.53	.01	.05	1	4
STANDARD C/AU-S	20	63	43	134	7.4	74	32	1078	3.96	42	22	7	39	53	18.5	15	21	60	.50	.084	40	61	.95	183	.09	34	1.94	.07	.14	11	48

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Au** ppb
SO-M-677	1	11	4	37	.1	10	5	98	4.08	2	5	ND	8	5	1.5	7	2	27	.02	.030	18	26	.22	41	.01	11	1.42	.01	.01	4	1
SO-M-678	1	13	12	68	.1	15	8	285	5.59	5	5	ND	10	6	.4	3	2	32	.03	.076	27	31	.33	63	.01	4	2.00	.01	.06	2	1
SO-M-679	1	5	14	42	.2	9	4	121	1.93	2	5	ND	7	6	.2	2	2	17	.07	.032	32	20	.40	59	.01	4	1.51	.01	.07	1	1
SO-M-680	1	21	20	81	.1	28	13	379	3.57	7	5	ND	11	11	.3	2	2	17	.18	.039	38	30	.76	71	.01	4	1.82	.01	.08	1	2
SO-M-681	1	10	20	71	.4	15	7	311	3.33	9	5	ND	7	5	.5	2	2	18	.07	.056	30	26	.47	61	.01	3	1.70	.01	.06	1	1
SO-M-682	1	2	9	16	.2	2	1	114	.46	4	5	ND	3	5	.2	2	2	9	.07	.016	29	6	.05	35	.01	3	.74	.01	.05	1	1
SO-M-683	1	11	20	80	.2	15	7	241	4.67	8	5	ND	8	5	.2	2	2	24	.07	.076	24	31	.54	59	.01	2	2.19	.01	.06	1	228
SO-M-684	1	7	14	52	.2	10	5	411	2.25	6	5	ND	6	5	.2	2	2	19	.04	.027	31	16	.31	81	.01	3	1.19	.01	.05	1	1
SO-M-685	1	13	26	79	.1	18	9	338	3.68	35	5	ND	7	7	.2	2	2	21	.09	.040	31	27	.63	105	.01	3	1.89	.01	.06	1	1
SO-M-686	1	5	12	35	.3	7	5	574	2.03	4	5	ND	6	5	.2	2	2	17	.02	.053	30	15	.16	54	.01	3	1.04	.01	.05	1	1
SO-M-687	1	11	20	68	.2	14	7	303	4.44	9	5	ND	7	5	.3	2	2	27	.03	.035	27	30	.57	88	.01	3	1.82	.01	.06	1	1
SO-M-688	1	13	27	67	.6	14	8	577	3.73	10	5	ND	7	5	.2	2	2	28	.03	.058	28	27	.51	64	.01	2	1.63	.01	.07	1	1
SO-M-689	1	12	19	48	.5	11	5	375	3.32	11	5	ND	7	6	.3	2	2	31	.04	.042	27	20	.23	80	.01	2	1.33	.01	.05	1	1
SO-M-690	1	46	41	140	1.3	37	20	1225	4.02	10	8	ND	6	51	.5	2	3	26	.55	.096	52	30	.58	234	.01	2	2.15	.01	.07	1	1
SO-M-691	1	24	27	137	.4	35	11	439	3.74	11	5	ND	8	19	.4	2	2	23	.15	.061	38	32	.59	225	.01	3	2.10	.01	.05	1	1
SO-M-800	1	55	40	172	.3	115	25	349	6.99	42	5	ND	9	19	.5	2	2	38	.28	.160	25	96	.84	184	.02	2	2.17	.01	.06	1	1
SO-M-801	1	26	19	95	.2	47	12	259	4.26	14	5	ND	9	10	.2	2	2	22	.11	.047	37	51	.52	103	.01	2	1.27	.01	.06	1	6
SO-M-802	1	35	24	164	.1	59	18	312	5.70	23	5	ND	8	10	.4	2	3	27	.10	.062	31	59	.52	70	.01	3	1.40	.01	.06	1	1
SO-M-803	1	40	18	80	.4	54	14	409	4.39	17	5	ND	5	9	.2	2	2	37	.09	.070	32	64	.48	74	.01	2	1.20	.01	.05	1	1
SO-M-804	1	7	14	77	.3	11	9	774	4.12	4	5	ND	8	6	.4	2	2	28	.05	.104	24	25	.27	51	.02	2	1.18	.01	.05	1	1
SO-M-805	1	16	14	98	.2	21	8	293	4.28	9	5	ND	9	11	.5	2	2	26	.13	.082	31	27	.51	92	.01	3	1.40	.01	.06	1	1
SO-M-806	1	20	14	87	.1	25	10	225	4.13	10	5	ND	9	13	.3	2	2	17	.14	.041	27	23	.38	39	.02	2	1.19	.01	.04	1	1
SO-M-807	1	21	15	70	.2	34	10	628	3.04	13	5	ND	7	9	.3	2	2	18	.12	.055	32	39	.31	60	.01	2	1.05	.01	.07	2	4
SO-M-808	1	21	38	116	.2	27	12	249	3.14	13	5	ND	8	17	.4	2	2	16	.26	.064	29	24	.39	31	.02	2	1.12	.01	.05	1	1
SO-M-809	1	30	41	99	.2	31	10	941	2.93	23	5	ND	8	16	.5	2	2	12	.22	.051	28	19	.31	44	.02	2	.83	.01	.05	1	2
SO-M-810	1	26	31	102	.2	27	13	317	3.16	14	5	ND	8	15	.5	2	2	20	.22	.034	24	26	.36	63	.02	2	1.33	.01	.06	1	2
SO-M-811	1	34	42	134	.4	34	13	697	3.13	20	5	ND	6	26	.6	2	2	17	.47	.055	22	28	.38	87	.01	3	1.26	.01	.08	1	3
SO-M-812	1	57	33	139	.1	42	16	554	4.05	16	5	ND	6	23	.4	2	2	24	.31	.043	29	41	.59	90	.02	3	1.88	.01	.09	1	2
SO-M-813	1	39	33	106	.3	36	13	391	3.40	12	5	ND	8	19	.7	2	2	19	.28	.048	25	32	.52	70	.02	3	1.45	.01	.07	1	1
SO-M-814	1	37	18	79	.1	43	11	321	3.47	8	5	ND	12	21	.2	2	2	23	.28	.056	29	43	.79	76	.03	2	1.66	.01	.10	1	4
RE SO-M-810	1	26	28	103	.2	28	13	310	3.14	15	5	ND	8	15	.2	2	2	20	.22	.034	23	26	.36	63	.01	2	1.33	.01	.06	1	3
SO-M-815	1	19	15	78	.1	31	12	462	2.91	6	5	ND	6	14	.3	2	2	21	.19	.029	23	33	.53	79	.01	2	1.48	.01	.07	1	4
SS-M92-099	1	38	20	144	.1	32	13	367	2.59	12	5	ND	8	12	.4	2	2	12	.29	.094	28	18	.37	69	.01	3	.97	.01	.03	1	1
STANDARD C/AU-S	19	60	37	130	6.9	71	31	1112	3.96	41	20	7	41	52	17.1	14	19	58	.51	.083	38	60	.93	183	.08	37	1.98	.07	.15	10	52

Sample type: SOIL. Samples beginning 'RE' are duplicate samples.

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: RIO ALGOM EXPLORATION INC.
P.O. BOX 10335, PACIFIC CENTRE
1650 - 609 GRANVILLE ST.
VANCOUVER, BC
V7Y 1G5

Project : 9124/9201
Comments: CC: W. DONALDSON

Certificate Date : 27-AUG-92
Invoice No. : I9219799
P.O. Number :
Account : GZ

CERTIFICATE OF ANALYSIS A9219799

SAMPLE	PREP CODE		Au ppb FA+AA	Ag ppm AAS	Al % (ICP)	Ba ppm (ICP)	Be ppm (ICP)	Bi ppm (ICP)	Ca % (ICP)	Cd ppm (ICP)	Co ppm (ICP)	Cr ppm (ICP)	Cu ppm (ICP)	Fe % (ICP)	K % (ICP)	Mg % (ICP)
15195	205	274	< 5	< 0.2	10.95	5500	< 0.5	10	0.20	< 0.5	3	187	17	3.17	3.48	1.35
15196	205	274	< 5	< 0.2	11.25	1180	< 0.5	12	0.09	< 0.5	13	190	23	5.36	2.71	1.20
15214	205	274	< 5	< 0.2	3.26	430	< 0.5	< 2	0.06	< 0.5	2	170	203	2.90	0.81	0.21
15215	205	274	< 5	< 0.2	1.42	640	< 0.5	< 2	0.19	< 0.5	1	285	13	0.76	0.61	0.08
15216	205	274	< 5	< 0.2	0.06	20	< 0.5	< 2	12.75	< 0.5	4	155	3	11.15	0.01	0.90
15217	205	274	< 5	< 0.2	4.02	550	< 0.5	< 2	0.61	< 0.5	10	181	21	2.16	1.16	0.29
15218	205	274	< 5	< 0.2	5.14	550	< 0.5	< 2	1.07	< 0.5	8	233	16	3.56	1.74	0.25
15219	205	274	< 5	< 0.2	13.70	1520	< 0.5	< 2	0.10	< 0.5	9	127	21	3.30	4.73	0.44
15220	205	274	< 5	< 0.2	9.83	3230	< 0.5	8	3.95	< 0.5	13	102	26	3.96	2.18	2.76
15221	205	274	< 5	< 0.2	4.95	1200	< 0.5	< 2	9.13	0.5	35	266	31	7.11	1.67	4.19
15222	205	274	< 5	0.4	3.38	680	< 0.5	8	0.24	< 0.5	9	367	396	3.52	1.01	0.59
15223	205	274	< 5	< 0.2	3.03	630	< 0.5	< 2	0.07	< 0.5	3	210	15	1.61	1.07	0.20
15225	205	274	< 5	2.0	2.78	40	< 0.5	10	0.04	0.5	21	138	423	6.65	0.15	1.50
15226	205	274	< 5	0.2	1.96	690	< 0.5	< 2	0.19	< 0.5	< 1	302	11	0.86	0.87	0.11
15227	205	274	< 5	< 0.2	2.09	910	< 0.5	< 2	0.08	< 0.5	2	145	141	0.54	1.05	0.27
15228	205	274	< 5	< 0.2	2.03	1050	< 0.5	< 2	0.44	1.5	1	264	61	0.95	0.74	0.13
15229	205	274	< 5	0.8	1.36	1320	< 0.5	< 2	0.02	< 0.5	< 1	256	9	0.40	0.65	0.11
15230	205	274	< 5	< 0.2	1.42	800	< 0.5	< 2	7.69	< 0.5	5	199	67	2.94	0.50	4.46
15231	205	274	< 5	< 0.2	7.72	7280	< 0.5	8	4.99	< 0.5	10	196	128	3.61	2.05	2.03

CERTIFICATION: B. Cargh

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers

212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: RIO ALGOM EXPLORATION INC.
P.O. BOX 10335, PACIFIC CENTRE
1650 - 609 GRANVILLE ST.
VANCOUVER, BC
V7Y 1G5

Certificate Date: 27-AUG-92
Invoice No. : I9219799
P.O. Number :
Account : GZ

Project : 9124/9201
Comments: CC: W. DONALDSON

CERTIFICATE OF ANALYSIS A9219799

SAMPLE	PREP CODE		Mn ppm (ICP)	Mo ppm (ICP)	Na % (ICP)	Ni ppm (ICP)	P ppm (ICP)	Pb ppm AAS	Sr ppm (ICP)	Ti % (ICP)	V ppm (ICP)	W ppm (ICP)	Zn ppm (ICP)
15195	205	274	150	15	0.74	3	140	8	166	0.38	154	< 10	68
15196	205	274	315	< 1	0.80	15	580	6	78	0.22	96	< 10	98
15214	205	274	660	1	0.21	22	130	52	33	0.09	96	< 10	154
15215	205	274	20	12	0.03	18	1020	28	26	0.03	237	< 10	64
15216	205	274	1080	1	< 0.01	14	60	4	104	< 0.01	10	< 10	188
15217	205	274	345	< 1	0.89	38	310	4	62	0.10	39	< 10	54
15218	205	274	455	1	0.75	24	100	12	41	0.11	39	< 10	72
15219	205	274	210	1	0.60	29	370	12	52	0.30	92	< 10	82
15220	205	274	535	1	1.51	28	430	8	486	0.37	83	< 10	78
15221	205	274	2210	4	0.27	118	1400	6	355	0.36	135	< 10	116
15222	205	274	1245	1	0.23	21	390	40	26	0.10	30	< 10	74
15223	205	274	1010	< 1	0.77	7	100	18	21	0.04	10	< 10	34
15225	205	274	385	1	0.03	7	80	384	4	0.02	13	< 10	332
15226	205	274	25	4	0.06	11	1520	168	27	0.06	278	< 10	52
15227	205	274	95	< 1	0.03	19	230	10	11	0.07	63	< 10	62
15228	205	274	30	22	0.04	11	2360	6	27	0.06	2350	< 10	118
15229	205	274	15	13	0.02	6	90	12	7	0.06	1450	< 10	22
15230	205	274	2040	1	0.02	21	330	344	145	0.03	53	< 10	566
15231	205	274	400	2	0.29	29	4120	6	188	0.26	278	< 10	56

CERTIFICATION: B. Cargh

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: RIO ALGOM EXPLORATION INC.
P.O. BOX 10335, PACIFIC CENTRE
1650 - 609 GRANVILLE ST.
VANCOUVER, BC
V7Y 1G5

Project : 9124
Comments: CC: W. DONALDSON

Certificate Date: 30-AUG-92
Invoice No. : I9219802
P.O. Number :
Account :GZ

CERTIFICATE OF ANALYSIS A9219802

SAMPLE	PREP CODE		Au ppb FA+AA	Ag ppm AAS	Al % (ICP)	Ba ppm (ICP)	Be ppm (ICP)	Bi ppm (ICP)	Ca % (ICP)	Cd ppm (ICP)	Co ppm (ICP)	Cr ppm (ICP)	Cu ppm (ICP)	Fe % (ICP)	K % (ICP)	Mg % (ICP)
15224	208	274	150	73.0	0.76	170	< 0.5	6	< 0.01	74.0	29	148	1355	>25.0	0.37	0.10

CERTIFICATION: [signature]

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: RIO ALGOM EXPLORATION INC.
P.O. BOX 10335, PACIFIC CENTRE
1650 - 609 GRANVILLE ST.
VANCOUVER, BC
V7Y 1G5

Project : 9124
Comments: CC: W. DONALDSON

Certificate Date: 30-AUG-92
Invoice No. :I9219802
P.O. Number :
Account :GZ

CERTIFICATE OF ANALYSIS A9219802

SAMPLE	PREP CODE		Mn ppm (ICP)	Mo ppm (ICP)	Na % (ICP)	Ni ppm (ICP)	P ppm (ICP)	Pb ppm AAS	Sr ppm (ICP)	Ti % (ICP)	V ppm (ICP)	W ppm (ICP)	Zn ppm (ICP)	Pb %	Zn %	
15224	208	274	40	27	0.01	39	40	>10000	< 1	0.02	138	< 50	>10000	2.44	2.83	

CERTIFICATION: [signature]

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: RIO ALGOM EXPLORATION INC.
P.O. BOX 10335, PACIFIC CENTRE
1650 - 609 GRANVILLE ST.
VANCOUVER, BC
V7Y 1G5

Project : 9124
Comments: ATTN: W.DONALASON

Certificate Date: 17-SEP-92
Invoice No. : I9221145
P.O. Number :
Account :GZ

CERTIFICATE OF ANALYSIS A9221145

SAMPLE	PREP CODE		Au ppb FA+AA	Ag ppm AAS	Al % (ICP)	Ba ppm (ICP)	Be ppm (ICP)	Bi ppm (ICP)	Ca % (ICP)	Cd ppm (ICP)	Co ppm (ICP)	Cr ppm (ICP)	Cu ppm (ICP)	Fe % (ICP)	K % (ICP)	Mg % (ICP)
15305	205	274	< 5	6.4	6.01	900	< 0.5	< 2	4.80	14.0	41	269	1035	6.48	1.15	2.18
15306	205	274	< 5	< 0.2	8.43	3070	< 0.5	< 2	4.83	< 0.5	12	103	63	3.09	3.65	2.61
15307	205	274	< 5	< 0.2	2.57	1080	< 0.5	< 2	0.06	< 0.5	2	224	11	1.58	1.23	0.20
15308	205	274	< 5	< 0.2	9.04	1200	< 0.5	< 2	4.93	< 0.5	15	249	49	4.65	1.87	2.26
15351	205	274	< 5	< 0.2	3.64	350	< 0.5	< 2	0.69	< 0.5	6	245	26	1.90	1.17	0.36
15352	205	274	< 5	< 0.2	7.09	800	< 0.5	< 2	0.43	< 0.5	13	184	36	3.58	2.76	0.53
15353	205	274	< 5	< 0.2	7.29	1080	0.5	< 2	0.14	< 0.5	15	121	26	3.58	3.00	0.34
15354	205	274	< 5	0.8	3.80	4110	< 0.5	< 2	0.17	11.5	4	174	71	1.98	1.59	0.27
15355	205	274	< 5	< 0.2	8.57	2990	< 0.5	< 2	0.34	< 0.5	4	143	7	1.15	2.94	0.38
15356	205	274	< 5	< 0.2	4.39	1100	< 0.5	< 2	2.56	< 0.5	7	160	10	2.01	2.05	0.45
15357	205	274	< 5	< 0.2	5.49	740	< 0.5	< 2	0.60	< 0.5	11	184	17	2.34	2.13	0.39
15358	205	274	< 5	< 0.2	5.44	620	< 0.5	< 2	0.06	< 0.5	15	261	26	3.01	1.91	0.43
15359	205	274	< 5	< 0.2	9.93	1170	< 0.5	< 2	0.05	< 0.5	17	174	54	4.35	3.37	0.98
15360	205	274	< 5	< 0.2	7.77	730	< 0.5	< 2	0.41	< 0.5	16	220	33	4.03	2.58	0.86
15361	205	274	< 5	< 0.2	5.48	1060	< 0.5	2	2.00	< 0.5	8	119	42	2.41	2.30	1.45
15362	205	274	< 5	0.4	5.36	1200	< 0.5	2	1.24	< 0.5	12	160	17	2.84	2.12	0.79
15363	205	274	< 5	0.6	7.16	1600	< 0.5	< 2	1.30	2.0	16	208	22	3.55	2.85	0.89
15364	205	274	< 5	0.4	7.33	1850	< 0.5	< 2	0.13	< 0.5	11	131	26	2.55	3.17	0.35
15365	205	274	< 5	0.6	5.98	1380	< 0.5	< 2	0.10	< 0.5	14	176	94	2.92	2.45	0.31
15366	205	274	< 5	0.6	5.86	360	< 0.5	< 2	0.06	< 0.5	19	128	133	12.15	1.19	1.87
15367	205	274	50	25.8	6.74	190	< 0.5	< 2	0.16	4.0	44	123	>10000	19.40	0.63	2.83
15368	205	274	70	0.8	8.65	650	< 0.5	< 2	0.24	< 0.5	15	153	343	12.35	2.08	2.20
15369	205	274	< 5	0.3	8.54	780	< 0.5	< 2	0.24	< 0.5	22	90	415	10.60	2.39	2.36
15370	205	274	< 5	1.2	8.53	1470	< 0.5	< 2	0.07	< 0.5	10	142	70	4.19	3.63	0.63
15371	205	274	< 5	6.4	4.12	500	< 0.5	< 2	0.14	13.5	22	109	337	3.47	1.90	0.25
15372	205	274	< 5	0.4	6.82	1810	< 0.5	< 2	0.13	< 0.5	13	135	73	2.69	2.26	0.71
15373	205	274	< 5	0.2	8.13	2050	< 0.5	2	0.12	< 0.5	12	124	32	2.90	3.04	0.65
15374	205	274	< 5	< 0.2	6.40	1890	< 0.5	< 2	0.04	< 0.5	6	151	17	2.10	2.44	0.46
15375	205	274	30	0.4	7.54	3410	< 0.5	2	0.20	0.5	11	181	58	2.81	3.14	0.43
15376	205	274	15	2.0	7.25	660	< 0.5	< 2	0.03	1.5	14	178	313	6.80	2.31	0.26
15377	205	274	35	2.0	1.72	180	< 0.5	< 2	0.03	1.0	4	293	130	2.85	0.69	0.08
15378	205	274	< 5	0.8	7.13	720	< 0.5	< 2	0.03	1.5	16	136	371	4.59	2.85	0.28
15379	205	274	< 5	0.8	6.59	660	< 0.5	< 2	0.03	< 0.5	8	215	156	4.04	2.74	0.25
15380	205	274	< 5	0.2	8.43	850	< 0.5	< 2	0.19	< 0.5	8	109	110	3.97	3.19	0.28
15381	205	274	< 5	0.2	8.83	840	< 0.5	< 2	0.04	< 0.5	12	165	29	3.84	3.52	0.43
15382	205	274	< 5	0.4	9.01	740	< 0.5	4	0.18	< 0.5	14	170	45	6.13	2.81	1.54
15383	205	274	< 5	1.8	3.62	60	< 0.5	< 2	0.06	< 0.5	6	144	189	7.08	0.20	1.60
15384	205	274	< 5	0.2	0.77	80	< 0.5	< 2	0.01	< 0.5	1	327	16	1.30	0.32	0.05
15385	205	274	< 5	0.6	4.92	420	< 0.5	< 2	0.08	< 0.5	10	357	26	4.21	1.74	0.72
15386	205	274	< 5	0.4	9.46	960	< 0.5	< 2	0.14	< 0.5	18	192	80	4.67	3.29	0.31

CERTIFICATION: [signature]

MANY SAMPLES INCOMPLETELY DIGESTED BY THIS METHOD

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

o: RIO ALGOM EXPLORATION INC.
P.O. BOX 10335, PACIFIC CENTRE
1650 - 609 GRANVILLE ST.
VANCOUVER, BC
V7Y 1G5

Project : 9124
Comments: ATTN: W.DONALASON

Page ɹer :1-B
Total Pages :2
Certificate Date: 17-SEP-92
Invoice No. : I9221145
P.O. Number :
Account :GZ

CERTIFICATE OF ANALYSIS A9221145

SAMPLE	PREP CODE		Mn ppm (ICP)	Mo ppm (ICP)	Na % (ICP)	Ni ppm (ICP)	P ppm (ICP)	Pb ppm AAS	Sr ppm (ICP)	Ti % (ICP)	V ppm (ICP)	W ppm (ICP)	Zn ppm (ICP)
15305	205	274	830	< 1	2.01	88	1190	484	250	0.23	161	< 10	2760
15306	205	274	440	< 1	1.64	20	260	6	310	0.11	55	< 10	102
15307	205	274	180	1	0.07	21	340	4	10	0.06	68	< 10	90
15308	205	274	435	2	1.74	54	670	4	454	0.77	176	< 10	72
15351	205	274	620	< 1	0.77	14	100	12	73	0.06	25	< 10	28
15352	205	274	570	1	0.80	31	190	38	82	0.10	51	< 10	78
15353	205	274	630	1	0.79	32	120	12	70	0.09	51	< 10	68
15354	205	274	150	47	0.09	50	1340	20	94	0.09	868	< 10	394
15355	205	274	305	2	1.86	8	290	12	87	0.18	129	< 10	46
15356	205	274	910	1	0.21	16	80	6	56	0.10	39	< 10	52
15357	205	274	860	1	0.90	22	100	20	64	0.09	42	< 10	52
15358	205	274	1270	< 1	0.76	37	110	14	38	0.09	34	< 10	68
15359	205	274	455	1	0.80	36	130	28	62	0.20	70	< 10	100
15360	205	274	1090	1	1.00	34	160	22	69	0.12	56	< 10	86
15361	205	274	820	9	0.11	48	520	20	188	0.12	218	< 10	108
15362	205	274	410	13	0.12	51	610	36	120	0.18	260	< 10	120
15363	205	274	430	10	0.18	62	750	44	138	0.27	365	< 10	152
15364	205	274	275	11	0.18	51	680	26	57	0.13	297	< 10	160
15365	205	274	355	7	0.15	40	430	64	44	0.12	192	< 10	304
15366	205	274	1630	< 1	0.09	26	10	78	21	0.07	38	< 10	412
15367	205	274	3160	1	0.30	31	830	234	36	0.12	147	< 10	1485
15368	205	274	1750	2	0.19	40	910	40	46	0.15	106	< 10	472
15369	205	274	2620	< 1	0.17	30	880	12	50	0.26	117	< 10	306
15370	205	274	200	11	0.22	44	580	94	56	0.17	228	< 10	312
15371	205	274	85	11	0.11	54	550	880	39	0.08	211	< 10	4360
15372	205	274	365	9	0.53	69	600	20	72	0.16	218	< 10	190
15373	205	274	390	8	0.29	58	550	16	73	0.25	295	< 10	154
15374	205	274	55	12	0.20	31	280	16	51	0.19	347	< 10	88
15375	205	274	210	6	0.19	56	1120	14	82	0.24	544	< 10	458
15376	205	274	1395	< 1	0.45	29	360	280	67	0.05	76	< 10	790
15377	205	274	465	1	0.09	12	140	636	14	0.02	22	< 10	436
15378	205	274	905	< 1	0.35	20	210	200	41	0.06	60	< 10	802
15379	205	274	895	< 1	0.37	22	160	180	41	0.06	55	< 10	366
15380	205	274	515	2	0.47	23	1080	92	61	0.08	118	< 10	222
15381	205	274	790	1	0.54	30	190	86	57	0.09	62	< 10	260
15382	205	274	1315	< 1	0.51	36	240	54	57	0.07	61	< 10	322
15383	205	274	635	1	0.22	22	330	264	25	0.04	104	< 10	444
15384	205	274	260	< 1	0.03	8	70	26	4	0.01	7	< 10	78
15385	205	274	1365	1	0.29	45	330	148	33	0.06	36	< 10	314
15386	205	274	390	< 1	0.58	54	510	32	82	0.12	72	< 10	144

CERTIFICATION: Hai D Ma

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: RIO ALGOM EXPLORATION INC.
P.O. BOX 10335, PACIFIC CENTRE
1650 - 609 GRANVILLE ST.
VANCOUVER, BC
V7Y 1G5

Project : 9124
Comments: ATTN: W.DONALASON

Certificate Date: 17-SEP-92
Invoice No. : I9221145
P.O. Number :
Account : GZ

CERTIFICATE OF ANALYSIS A9221145

SAMPLE	PREP CODE		Au ppb FA+AA	Ag ppm AAS	Al % (ICP)	Ba ppm (ICP)	Be ppm (ICP)	Bi ppm (ICP)	Ca % (ICP)	Cd ppm (ICP)	Co ppm (ICP)	Cr ppm (ICP)	Cu ppm (ICP)	Fe % (ICP)	K % (ICP)	Mg % (ICP)
15387	205	274	< 5	1.2	9.10	2500	< 0.5	< 2	0.17	< 0.5	22	168	357	5.53	3.32	0.95
15388	205	274	45	1.2	6.31	170	< 0.5	< 2	0.15	< 0.5	13	199	133	3.73	2.51	0.43
15389	205	274	10	0.8	7.51	340	< 0.5	2	0.91	< 0.5	14	128	55	3.51	3.16	0.97
15390	205	274	15	3.8	7.01	210	< 0.5	< 2	0.10	0.5	14	140	206	4.23	2.85	0.32
15391	205	274	< 5	0.2	5.37	620	< 0.5	< 2	0.07	< 0.5	13	188	40	5.69	1.74	0.78
15392	205	274	< 5	< 0.2	8.22	1090	< 0.5	< 2	0.14	< 0.5	15	200	35	3.60	3.22	0.31
15393	205	274	30	12.8	6.04	350	< 0.5	8	0.14	7.0	28	176	1435	8.96	2.40	0.62
15394	205	274	< 5	0.4	3.46	1070	< 0.5	< 2	0.17	< 0.5	9	304	258	2.54	1.47	0.20
15395	205	274	< 5	< 0.2	0.56	160	< 0.5	< 2	0.03	< 0.5	2	389	50	1.72	0.22	0.03
15396	205	274	110	1.6	9.05	2010	< 0.5	< 2	0.49	< 0.5	32	210	525	7.23	3.48	0.58
15397	205	274	10	< 0.2	1.05	360	< 0.5	< 2	0.19	< 0.5	1	285	77	9.41	0.44	0.14
15398	205	274	< 5	< 0.2	3.58	1470	< 0.5	< 2	0.07	< 0.5	6	185	195	1.55	1.78	0.27
15399	205	274	< 5	0.6	2.89	970	< 0.5	< 2	0.14	< 0.5	3	227	161	2.09	1.31	0.20
15400	205	274	< 5	0.4	3.54	1290	< 0.5	2	0.02	< 0.5	3	236	102	1.45	1.74	0.28
15401	205	274	40	1.8	3.59	1330	< 0.5	< 2	0.01	< 0.5	3	172	257	2.28	1.72	0.27
15402	205	274	< 5	0.6	0.59	290	< 0.5	2	0.49	< 0.5	2	296	26	1.19	0.23	0.31
15403	205	274	< 5	3.8	3.99	2470	< 0.5	< 2	3.38	3.5	12	496	396	6.73	1.68	2.03
15404	205	274	< 5	1.4	0.90	350	< 0.5	< 2	0.06	< 0.5	3	463	28	1.17	0.27	0.04
15405	205	274	< 5	0.4	4.22	2010	< 0.5	< 2	0.09	< 0.5	8	364	223	2.53	2.08	0.30
15406	205	274	< 5	0.6	2.52	1280	< 0.5	< 2	0.03	< 0.5	3	203	271	1.97	1.26	0.19
15407	205	274	< 5	1.0	4.30	2260	< 0.5	< 2	0.46	0.5	8	251	262	3.18	2.23	0.32

CERTIFICATION: [signature]

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: RIO ALGOM EXPLORATION INC.
P.O. BOX 10335, PACIFIC CENTRE
1650 - 609 GRANVILLE ST.
VANCOUVER, BC
V7Y 1G5

Project : 9124
Comments: ATTN: W.DONALASON

Certificate Date: 17-SEP-92
Invoice No. : I9221145
P.O. Number :
Account : GZ

CERTIFICATE OF ANALYSIS A9221145

SAMPLE	PREP CODE		Mn ppm (ICP)	Mo ppm (ICP)	Na % (ICP)	Ni ppm (ICP)	P ppm (ICP)	Pb ppm AAS	Sr ppm (ICP)	Ti % (ICP)	V ppm (ICP)	W ppm (ICP)	Zn ppm (ICP)
15387	205	274	595	1	0.31	43	430	140	59	0.12	78	< 10	490
15388	205	274	240	1	0.24	40	510	194	44	0.09	57	< 10	518
15389	205	274	430	< 1	0.30	32	380	134	77	0.10	60	< 10	276
15390	205	274	110	2	0.25	38	400	340	39	0.09	68	< 10	494
15391	205	274	995	1	0.23	24	200	106	35	0.05	32	< 10	208
15392	205	274	375	< 1	0.32	30	490	12	48	0.11	62	< 10	130
15393	205	274	310	4	0.26	50	440	2200	44	0.06	148	< 10	2130
15394	205	274	340	6	0.08	87	790	24	26	0.09	70	< 10	316
15395	205	274	320	1	< 0.01	17	110	80	3	0.01	18	< 10	64
15396	205	274	1455	< 1	0.23	82	520	84	32	0.17	294	< 10	436
15397	205	274	800	1	0.01	27	710	< 2	13	0.01	25	< 10	214
15398	205	274	205	2	0.08	48	300	10	12	0.08	76	< 10	200
15399	205	274	230	3	0.06	36	870	108	23	0.06	60	< 10	258
15400	205	274	80	4	0.08	22	160	170	8	0.08	71	< 10	332
15401	205	274	175	7	0.07	32	310	264	19	0.07	76	< 10	400
15402	205	274	830	1	0.01	17	210	168	12	< 0.01	18	< 10	162
15403	205	274	8180	4	0.08	93	790	1240	89	0.08	157	< 10	1880
15404	205	274	365	< 1	0.01	15	200	280	4	0.01	26	< 10	168
15405	205	274	850	5	0.12	64	660	120	14	0.10	330	< 10	364
15406	205	274	110	2	0.05	36	400	110	9	0.05	55	< 10	198
15407	205	274	1355	4	0.11	58	2620	126	29	0.09	75	< 10	426

CERTIFICATION: [signature]

Chemex Labs Ltd.
Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

o: RIO ALGOM EXPLORATION INC.
P.O. BOX 10335, PACIFIC CENTRE
1650 - 609 GRANVILLE ST.
VANCOUVER, BC
V7Y 1G5

Project : 9124
Comments: ATTN: W.DONALDSON

Page Number : 1-A
Total Pages : 1
Certificate Date: 16-SEP-92
Invoice No. : I9221146
P.O. Number :
Account : GZ

CERTIFICATE OF ANALYSIS A9221146

SAMPLE	PREP CODE		Au ppb FA+AA	Ag ppm AAS	Al % (ICP)	Ba ppm (ICP)	Be ppm (ICP)	Bi ppm (ICP)	Ca % (ICP)	Cd ppm (ICP)	Co ppm (ICP)	Cr ppm (ICP)	Cu ppm (ICP)	Fe % (ICP)	K % (ICP)	Mg % (ICP)
SS-M131	201	285	< 5	0.8	6.74	2720	< 0.5	< 2	0.79	1.5	32	106	146	6.70	2.12	0.81
SS-M132	201	285	< 5	< 0.2	6.19	650	< 0.5	< 2	0.24	< 0.5	22	50	30	3.40	2.29	0.50
TB11+00E 18+00N	201	285	< 5	< 0.2	8.05	820	< 0.5	< 2	1.09	< 0.5	18	79	42	4.04	2.71	0.98
TD10+00N 27+25E	201	285	< 5	< 0.2	10.15	1070	< 0.5	< 2	0.41	< 0.5	22	95	50	4.83	3.72	1.06

CERTIFICATION: [signature]

Chemex Labs Ltd.

Analytical Chemists * Geochemists * Registered Assayers
212 Brooksbank Ave., North Vancouver
British Columbia, Canada V7J 2C1
PHONE: 604-984-0221

To: RIO ALGOM EXPLORATION INC.
P.O. BOX 10335, PACIFIC CENTRE
1650 - 609 GRANVILLE ST.
VANCOUVER, BC
V7Y 1G5

Project : 9124
Comments: ATTN: W.DONALDSON

Page Number :1-B
Total Pages :1
Certificate Date: 16-SEP-92
Invoice No. : I9221146
P.O. Number :
Account : GZ

CERTIFICATE OF ANALYSIS A9221146

SAMPLE	PREP CODE		Mn ppm (ICP)	Mo ppm (ICP)	Na % (ICP)	Ni ppm (ICP)	P ppm (ICP)	Pb ppm AAS	Sr ppm (ICP)	Ti % (ICP)	V ppm (ICP)	W ppm (ICP)	Zn ppm (ICP)			
SS-M131	201	285	5020	2	0.51	97	2170	60	92	0.10	165	< 10	406			
SS-M132	201	285	990	1	0.79	32	550	24	83	0.21	51	< 10	84			
TB11+00E 18+00N	201	285	720	< 1	0.91	36	510	30	139	0.30	84	< 10	100			
TD10+00N 27+25E	201	285	740	< 1	0.79	46	540	30	104	0.21	81	< 10	126			

CERTIFICATION: [signature]

APPENDIX III

ROCK SAMPLE DESCRIPTIONS

APPENDIX III - ROCK SAMPLE DESCRIPTIONS

*** Trench sample descriptions on maps 2 to 7.

A5210	CHLORITE SCHIST 1% pyrite	Outcrop, grab
A5231	GRAPHITIC SCHIST trace disseminated pyrite	Outcrop, grab
A5232	GRAPHITIC SCHIST trace disseminated pyrite	Outcrop, grab
10056	CHLORITIC SCHIST 0.5% chalcopyrite, 1% pyrite	Outcrop, grab
10057	CHLORITIC SCHIST minor disseminated pyrite and chalcopyrite	Outcrop, grab
10058	SERICITE-ALBITE-TALC SCHIST 20 cm boulder, 10% disseminated pyrite	Float, grab
15162	CHLORITIC SCHIST(?) limonitic rock with some quartz	Subcrop, grab
15163	GRAPHITIC PHYLLITE 0.5% disseminated and aggregates of pyrite	Float, grab
15164	CHLORITE SCHIST 0.5% pyrite	Float, grab
15165	INTERMEDIATE VOLCANIC FLOW angular rock, 1% pyrite	Float, grab
15166	GRIT 0.5% disseminated pyrite, 2% chlorite	Float, grab
15195	CHLORITE SCHIST iron-stained weathered surfaces and fractures	Outcrop, grab
15196	CHLORITIC SCHIST 1% disseminated pyrite, rust-coloured weathering	Outcrop, grab
15214	GRAPHITIC SCHIST AND ARGILLITE 0.5% disseminated pyrite, limonite on fractures	Outcrop, grab

15215	GRAPHITIC PHYLLITE 0.5% thin quartz stringers, minor diss. pyrite	Outcrop, grab
15216	30 cm QUARTZ VEIN 50% limonitic-rich cavities	Outcrop, grab
15217	CHLORITE-SERICITE SCHIST 10% limonitic cavities, several quartz veins	Outcrop, grab
15218	CHLORITIC SCHIST limonite on several fractures	Outcrop, grab
15219	CHLORITIC SCHIST 0.2% pyrite cubes to 4 mm size	Outcrop, grab
15220	SERICITE-ALBITE-TALC SCHIST minor diss. pyrite, rust-coloured laminations	Outcrop, grab
15221	QUARTZ-SERICITE SCHIST 1 cm quartz vein, 1 cm thick limonitic weathering	Float, grab
15222	QUARTZ VEIN 1% disseminated pyrite, 5% chocolate-brown weathering	Float, grab
15223	QUARTZ-ANKERITE SCHIST 4% ankerite porphyroblasts, 1 cm quartz vein	Float, grab
15224	MASSIVE SULPHIDE BOULDER predominately pyrite, with hydrozincite weathering	Float, grab
15225	QUARTZITE(?) 2% disseminated pyrite	Float, grab
15226	ARGILLITE graphitic, with rust-coloured fractures	Outcrop, grab
15227	GRAPHITIC SCHIST limonite on fractures	Outcrop, grab
15228	GRAPHITIC SCHIST 0.5% remnant pyrite cavities to 4 mm width	Outcrop, grab
15229	GRAPHITIC ARGILLITE 4% carbonate veins, 0.5% pyrite cubes to 3 mm size	Float, grab

15230	QUARTZ AND ARGILLITE FLOAT 6% limonite on all fractures	Float, grab
15231	GRAPHITIC PHYLLITE 4% limonite on fractures, rock feels heavy	Float, grab
15305	QUARTZ-SERICITE SCHIST 1% disseminated pyrite, 1 cm limonitic weathering	Float, grab
15306	ALTERED VOLCANIC(?) abundant pyrite cubes to 3 mm size	Float, grab
15307	ARGILLITE extremely folded, with thin white bands (non-calc)	Float, grab
15308	SILTSTONE 1% bedded disseminated pyrite	Float, grab

APPENDIX IV

GEOPHYSICAL REPORT

RIO ALGOM EXPLORATION INC.

GEOPHYSICAL REPORT ON A HORIZONTAL LOOP EM (GENIE) SURVEY

MASS PROPERTY
LIKELY, B.C.

LATITUDE: 52°45'N LONGITUDE: 121°18'W
CARIBOO M.D. NTS: 93A/11,14

AUTHOR: Dennis V. Woods, Ph.D., P.Eng.
Consulting Geophysicist

DATE OF WORK: 15-24 June 1992
DATE OF REPORT: 8 Aug 1992

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA D. V. WOODS

DENNIS V. WOODS, Ph.D., P.Eng.
Consulting Geophysicist

2539 - 140th Street, White Rock, B.C. V4A 4H9 (604) 538-1445

TABLE OF CONTENTS **PAGE**

TABLES

ILLUSTRATIONS

MAPS

INTRODUCTION:

During the period 15-24 June 1992, a horizontal loop electromagnetic (HLEM) survey was carried out on the Mass Property in central British Columbia for Rio Algom Exploration Inc. The survey was conducted on four separate grid areas south of Cariboo Lake near Likely, B.C. using a Scintrex SE-88 GEometrically Normalized In-phase Electromagnetic (GENIE) system.

The purpose of the survey was to locate EM conductors which had previously been detected by a helicopter airborne EM survey (Aerodat, 1991). Poor navigational control of this survey, and hence the rather imprecise resolution of the detected conductors, necessitated a reconnaissance type ground EM follow-up. The GENIE system was selected because of its greater portability than fixed source, transient EM (e.g. PEM), and its immunity from topographic effects unlike conventional HLEM systems (e.g. MaxMin). Although GENIE survey data is not as fully interpretable as other more powerful systems, it was believed to be adequate to locate the airborne conductors for follow-up ground truth by trenching or shallow drilling.

The results of the survey are presented in this report along with a technical description of the GENIE method, survey procedures and data processing. The locations, depths, dips and conductivity-thickness products (conductances) of conductors have been interpreted from the survey data. The results of a VLF-EM survey carried out by personnel of Rio Algom in May 1992 have also been plotted and included in this report to aid in the discrimination of possible economic conductors.

SURVEY LOCATION AND ACCESS:

The Mass property is located on the north slopes of Browntop Mountain south of Cariboo Lake, about 20 kilometres northeast of Likely, B.C. (Figure 1). Access is via logging loads from Likely along the Cariboo River valley and up the slopes of Browntop Mountain. Each survey grid is easily accessible by logging road.

HORIZONTAL LOOP ELECTROMAGNETIC METHOD:

The horizontal loop electromagnetic (HLEM) method is a moving-source, frequency domain EM technique in which the transmitter and receiver coils are maintained in a horizontal (or at least parallel to mean terrain) coplanar alignment at a fixed separation. The vectorial sum of the secondary and primary fields are measured with the receiver coil and compared in amplitude and phase with a reference sample of pure primary field obtained by direct hard-wire connection to the transmitter. The measured response is usually resolved into a component which is perfectly in phase with the primary field (in-phase or real component) and a component which is precisely 90° out of phase with the primary (quadrature or imaginary component).

Conductive structures in the ground will cause a marked change in the amplitude and phase (or in-phase and quadrature components) of the secondary field by electromagnetic induction. The character of an anomalous response depends on the geometry, size and conductivity of the conductive formation in the earth. Generally, a bedrock conductor will produce a negative response when straddled by the

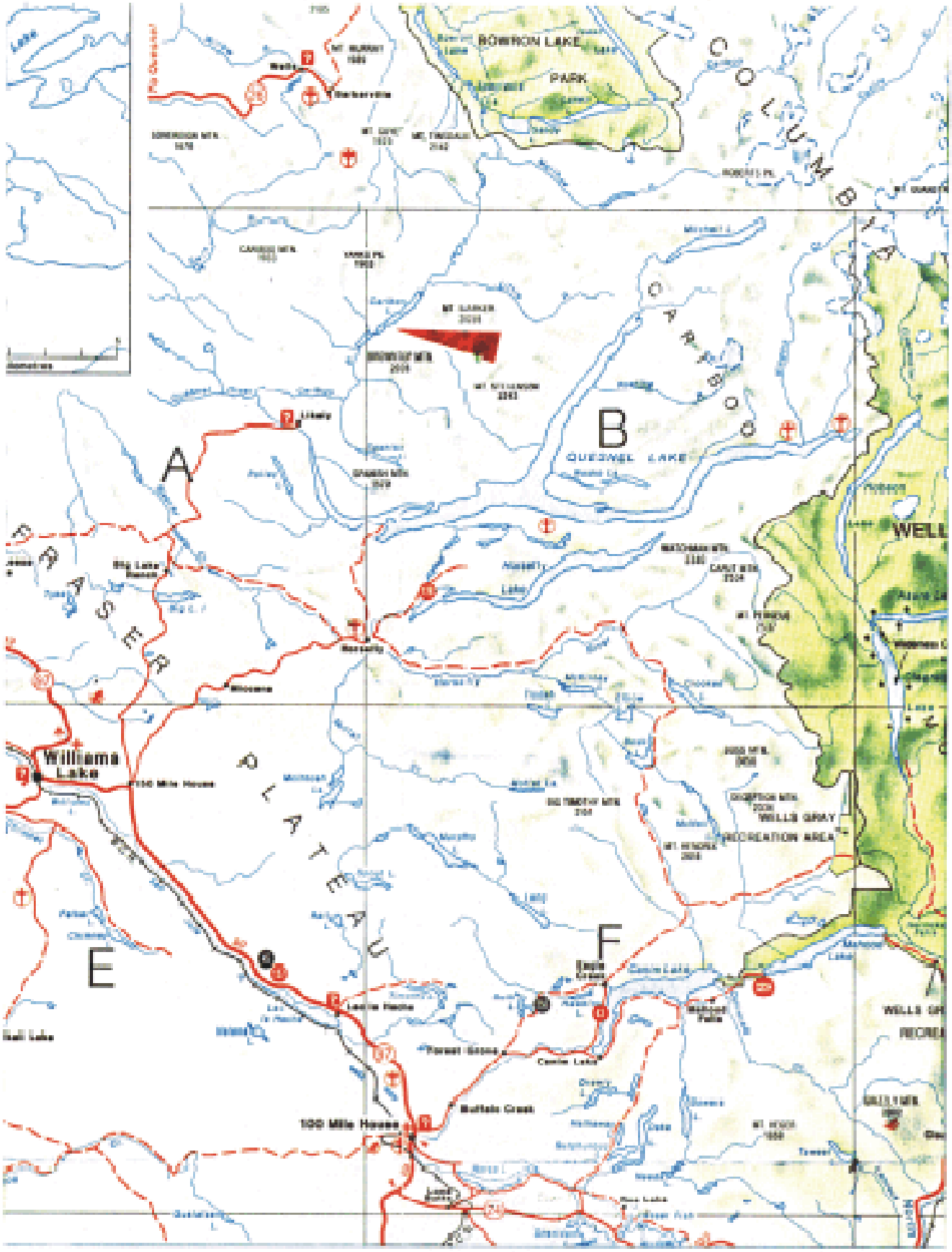


Figure 1.
Location Map - Mass Property
Rio Algom Exploration Inc.

transmitter and receiver, and a positive response when the system is removed from the conductor by a short distance. More complex anomaly profiles result from flat-lying to gently dipping conductors, and from multiple conductors separated by less than the transmitter to receiver coil separation.

The relative amplitude of the in-phase and quadrature components is a direct function of the conductivity and size of the conductor (along with coil separation and frequency of the system) and is used to interpret the conductance and depth of the conductor. The depth of detection of an HLEM system is nominally half the coil separation, however if noise is kept to a minimum, 2-3% anomalies due to conductors at twice that depth can sometimes be identified. Coil separation is limited by the size and power of the transmitter which can be efficiently carried through the bush. Maximum separation is usually of order 100-200 m, although some high powered systems can be operated at 400 m separation under ideal conditions.

GEOMETRICALLY NORMALIZED IN-PHASE ELECTROMAGNETIC SYSTEM:

The GENIE (**GE**ometrically **N**ormalized **I**n-phase **E**lectromagnetic) system is a frequency domain EM system which is essentially the same as conventional horizontal loop EM (HLEM) except that only the in-phase component is measured, and the secondary response is normalized to a low-frequency reference field rather than to a hard-wired sample of the primary field. This normalization method has two significant advantages: 1) the absence of a interconnection cable between the receiver and the transmitter eases logistical use in rugged terrain, and 2) since the secondary field is normalized by a low-frequency reference field which will have nearly the same geometric distortion due to coil misalignment, the recorded response is almost completely unaffected by rugged topography.

There are some drawbacks however. Since only the in-phase response is measured there is less interpretive power than in-phase and quadrature HLEM systems, the ratio of high to low frequency secondary fields can potentially approach unity for extremely strong conductors thus rendering them undetectable, and the low-frequency reference field can be differentially effected by the geologic structure thus distorting an anomalous response which leads to misinterpretations.

These possible difficulties have been taken into account in the design of the instrument and the selection of the reference and signal frequencies. The system has been designed for use in the Canadian Shield and Cordilleran environments for massive sulphide exploration, where it has had considerable success (e.g. Doborzynski, et al., 1981). Further details of the theory of operation of the GENIE system are can be found in Johnson and Doborzynski (1986). Instrument specifications are included at the end of this report.

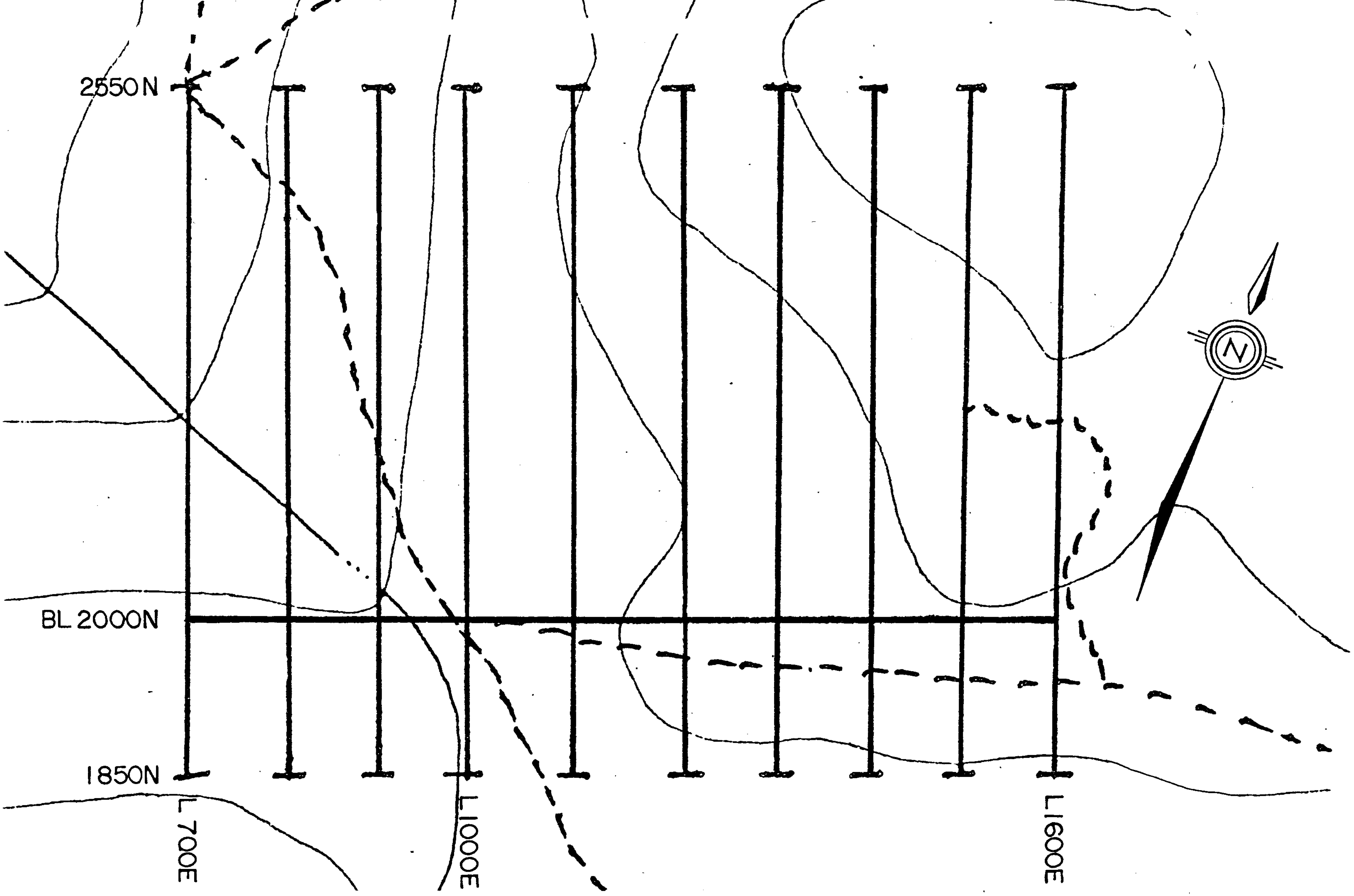
SURVEY PROCEDURES:

The GENIE survey at the Mass property was carried out on selected lines of four separate grids established by Rio Algom personnel after an initial ground follow-up investigation of the airborne EM survey in May 1992. Reconnaissance VLF-EM using a Geonics EM16 VLF receiver was carried out at this time to approximately locate conductors and position the survey grids. A number of specific areas previously identified for follow-up work were eliminated from further consideration due to the presence of graphitic units in proximity to airborne EM anomalies. The four selected areas for the GENIE survey are designated "A" through "D" and are shown in Figures 2 to 5 respectively. Details of the survey are listed below in Table 1.

Table 1 GENIE Survey - Mass Property

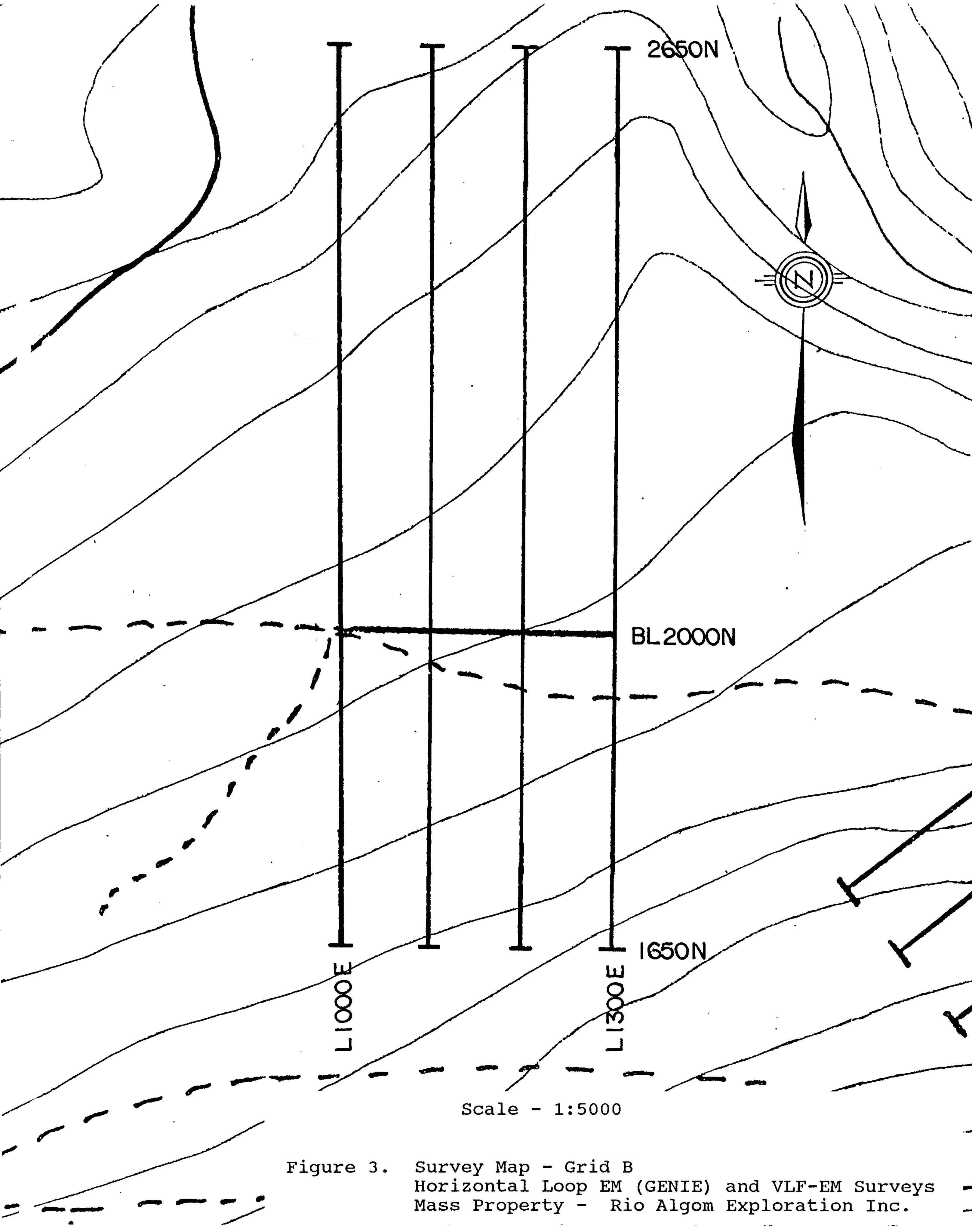
Grid	Line	Stations	Length
A	9+00E	19+00N to 25+00N	600 m
	11+00E	19+25N to 25+00N	575 m
	12+00E	19+00N to 25+00N	600 m
	13+00E	19+00N to 25+00N	600 m
	14+00E	19+00N to 25+00N	600 m
	16+00E	19+00N to 25+00N	600 m
B	10+00E	17+00N to 25+75N	875 m
	11+00E	17+00N to 25+50N	850 m
	12+00E	17+00N to 25+00N	800 m
	13+00E	17+00N to 25+50N	850 m
C	9+00N	16+50E to 22+00E	550 m
	10+00N	16+50E to 22+00E	550 m
	11+00N	16+50E to 22+75E	625 m
	12+00N	16+25E to 22+75E	650 m
	13+00N	16+50E to 21+75E	525 m
	14+00N	16+50E to 21+25E	475 m
D	10+00N	23+75E to 33+00E	925 m
	11+00N	23+75E to 33+00E	925 m
	12+00N	23+75E to 33+00E	925 m
		total	13.1 km

The GENIE survey was carried out using a 100 m transmitter to receiver coil separation. This separation limits the depth of investigation to about 50-75 m, however it provides finer resolution of multiple conductive horizons as expected from the airborne EM



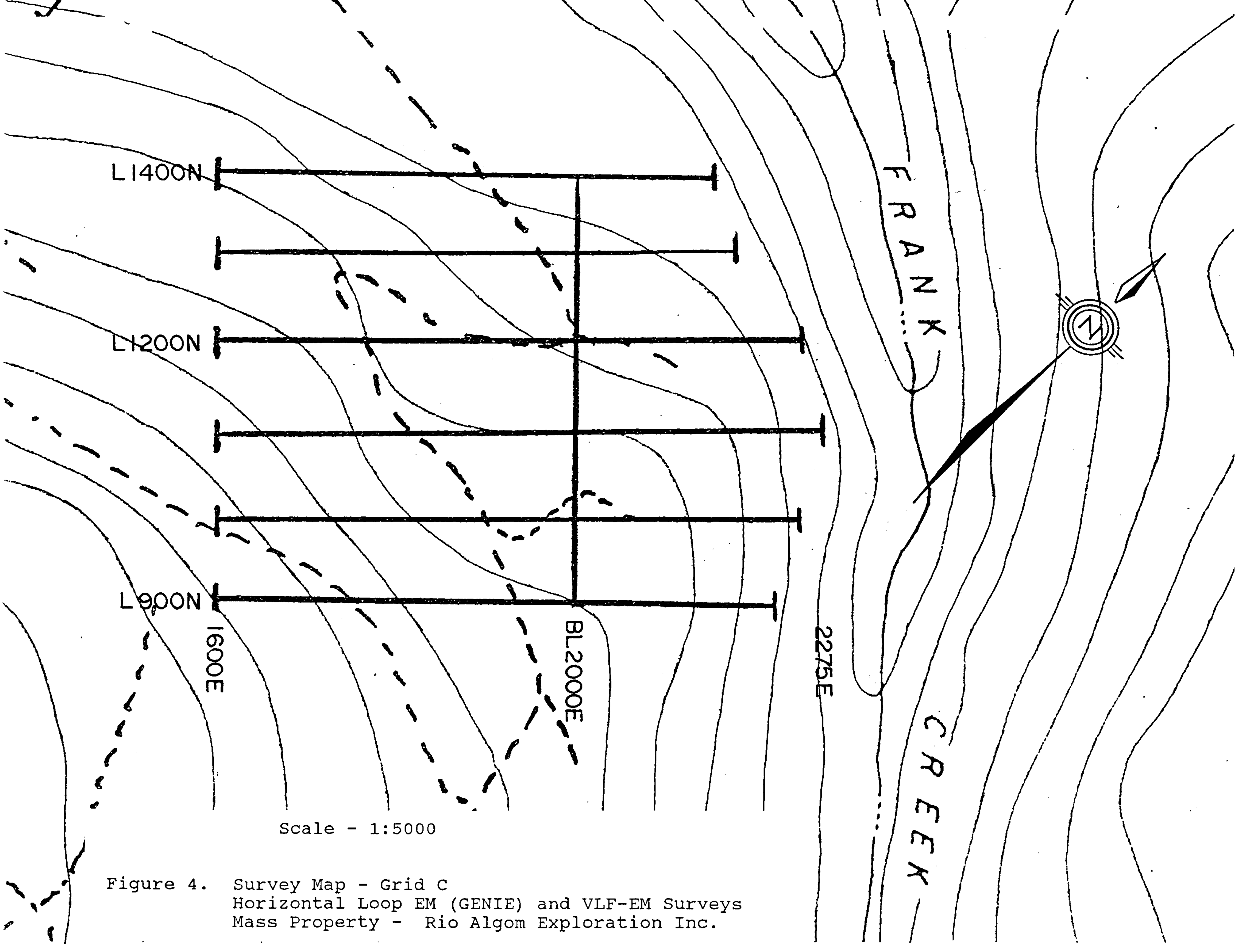
Scale - 1:5000

Figure 2. Survey Map - Grid A
Horizontal Loop EM (GENIE) and VLF-EM Surveys
Mass Property - Rio Algom Exploration Inc.



Scale - 1:5000

Figure 3. Survey Map - Grid B
Horizontal Loop EM (GENIE) and VLF-EM Surveys
Mass Property - Rio Algom Exploration Inc.



Scale - 1:5000

Figure 4. Survey Map - Grid C
Horizontal Loop EM (GENIE) and VLF-EM Surveys
Mass Property - Rio Algom Exploration Inc.

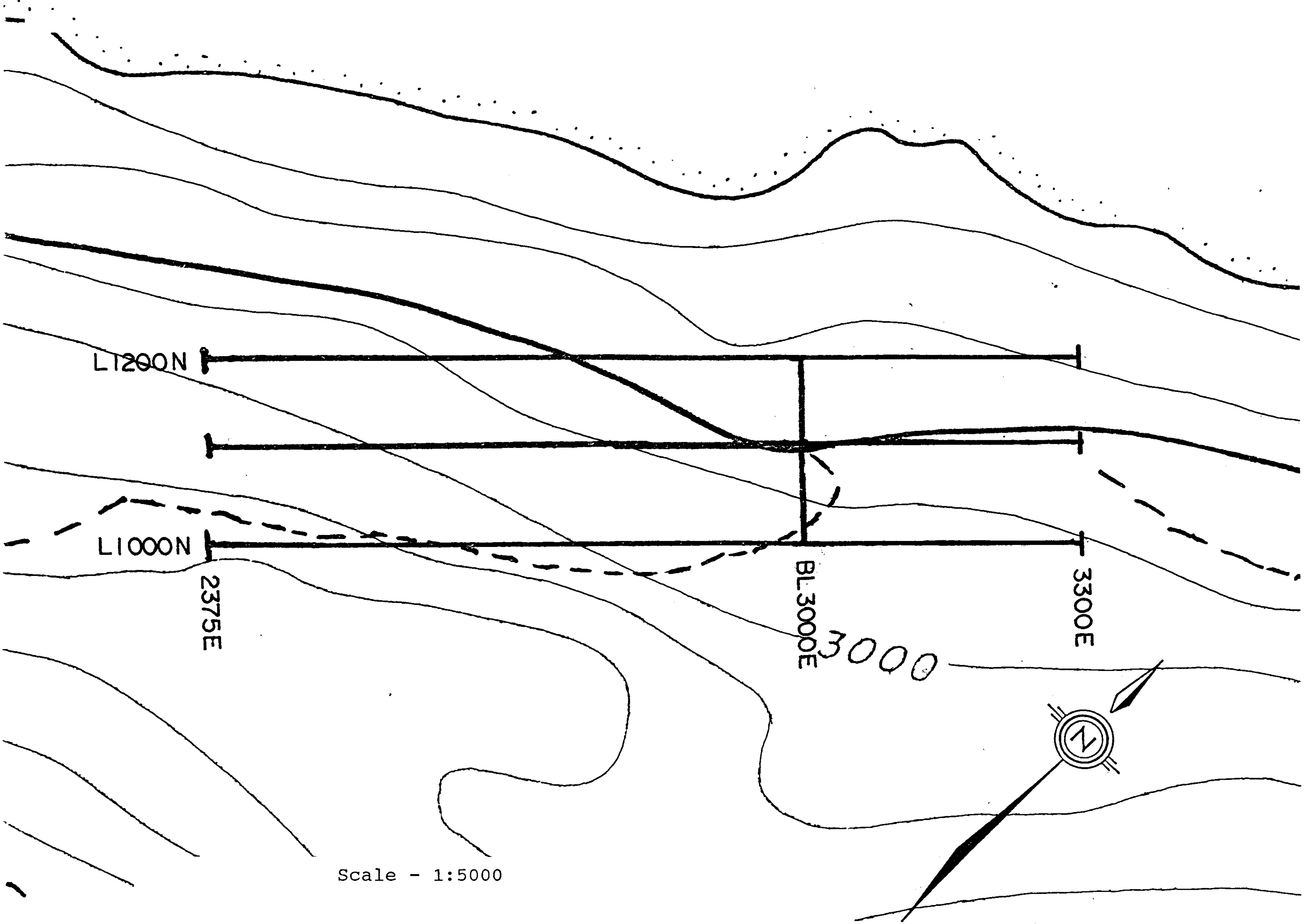


Figure 5. Survey Map - Grid D
Horizontal Loop EM (GENIE) and VLF-EM Surveys
Mass Property - Rio Algom Exploration Inc.

data. The standard frequencies of 337.5, 1012.5 and 3037.5 Hz were recorded at a reference frequency of 112.5 Hz. The response ratio $(V_{sig}/V_{ref}-1) \times 100\%$ was manually recorded at each station and at the end of each survey day input to a computer. Repeat readings were taken at some stations to ensure low noise data quality. Stations were taken every 25 m along the grid lines.

The VLF-EM survey was presumable carried out using normal VLF survey procedures (Paterson and Ronka, 1971). Annapolis (21.4 kHz) was used for the surveys of grids A and B, Seattle (24.8 kHz) was used on grids C and D.

DATA PRESENTATION AND INTERPRETATION:

The VLF-EM data are plotted as line profiles on separate maps for each grid area (Maps A1, B1, C1 and D1). Both the in-phase and quadrature data are plotted on a common scale of 10%/cm, except for grid C where larger responses necessitated plotting at 20%/cm. The in-phase components have also been spatially filtered (Fraser, 1969) to transform cross-overs and inflections to peaks which can be contoured for visual presentation (Maps A2, B2, C2 and D2) and line-to-line correlation. The VLF-EM profile plots are interpreted by locating conductors at points of maximum inflection and then interpolating between lines with the aid of the Fraser filter contour plots. The interpreted conductors are the transferred onto the Fraser filter plots for comparison purposes.

The GENIE data are plotted relative to station location (defined as the mid-point between the transmitter and receiver) to form response profiles on four separate maps of the grid areas (Maps A3, B3, C3 and D3). Each frequency is plotted as a separate profile combined on a common profile plot. All profiles are plotted at the same scale of 25%/cm.

Conductors are located at the centres of negative anomalies or half a coil separation from the positive to negative cross-overs. In some cases, where a wide negative response is observed, only a wide zone of multiple conductors or conductive overburden can be identified rather than interpreting individual conductors. Large positive responses can be caused by shallow flat-lying conductors, or by two conductors spaced about one to two coil separations apart, or by a strongly magnetic unit.

Where an anomaly from an individual conductor can be isolated, it is possible to determine the dip of the conductor from the relative amplitudes of the positive shoulders, the depth of the conductor from the amplitude of the negative peak, and the conductivity-thickness product (conductance) from the relative responses on the three frequencies (Johnson and Doborzynski, 1986). These estimates are subject to considerable error due to factors outlined in the previous section. Additional survey data are required at smaller coil separations in order to make an unequivocal interpretation.

DISCUSSION OF RESULTS:

Strong anomalous responses are observed on all grids with both the VLF-EM and the GENIE surveys. For the most part, the VLF-EM results duplicate the GENIE data indicating that most of the anomalies are due to relatively large conductive structures with significant strike length and depth extent. In some areas, broad anomalous responses are interpreted as wide zones of multiple conductors, however, attempts have been made to identify individual conductors within these zones.

Grid A

A 200-300 m wide zone of multiple conductors and/or conductive overburden is interpreted in the central portion of the survey grid from the large amplitude anomalous GENIE responses on all lines. (In places the response is so large that it has pegged off-scale on the highest frequency at about 100%). This anomalous GENIE response is most likely due to very shallow, closely spaced conductors within a broader, generally conductive formation.

There are surprising few strong VLF-EM anomalies in this area, however there does appear to be a broad response with both the in-phase (dip angle) and quadrature VLF-EM components suggesting conductive overburden. Shallow, closely spaced multiple conductors might produce a similar VLF-EM response.

A large amplitude, coincident GENIE and VLF-EM anomaly in the northern part of the grid is due to a large conductive sheet buried at shallow depth. The large size of this conductor, and it relatively high conductivity-thickness product of 10 to 30 mhos (Siemens), suggests a conductive stratigraphic horizon, possibly graphitic.

Grid B

Numerous individual conductors have been interpreted from the variety of anomalies observed in the GENIE survey data. The conductors are at various depths and have widely ranging conductances from less than 5 mhos to over 30 mhos. There is close correlation between the VLF-EM results and the GENIE data, indicating that the conductors are dominantly caused by large conductive formations.

The strongest response is due to a pair of very shallow conductors, which may be part of a wider, multiple conductive zone, at about 20+00N. These conductors also dominate the VLF-EM results and are most likely due to an extensive graphitic formation.

Most other GENIE anomalies, although not as strong as the dominant response, have coincident VLF-EM anomalies. The most notable exceptions are the GENIE conductors at about 22+25N on lines 12+00E and 13+00E, and at 18+00N on lines 10+00E and 11+00E. The first conductor has a coincident VLF-EM anomaly on line 13+00E but not on line 12+00E, possibly because it is much deeper beneath line 12+00E. The conductor at about 18+00N on lines 10+00 and 11+00E has a weak VLF-EM response however it is displaced about 25-50 m to the south. The apparent absence of a VLF-EM response from this GENIE conductor may be related to the lower interpreted conductance and greater depth of this conductor.

Grid C

A wide zone of multiple conductors, similar to grid A, has been interpreted in the central portions of grid C from the broad, large-amplitude GENIE responses in this area. However, in this case, individual conductors can be definitively interpreted from the shape of the response profiles. These conductors are shallow, and have high conductances. Also, there is a very clear correlation between these conductors and anomalous VLF-EM responses. The interpretation is similar to grid A: the conductors are probably due to graphitic horizons of considerable strike length and depth extent, within a generally conductive formation.

Two conductors have been inferred in the western corner of the grid from weak GENIE responses. These possible conductors have no VLF-EM correlation and hence may be potentially better targets for follow-up investigation. However, the anomalous responses have only been partially recorded; additional data are required to the southwest to make a more definitive interpretation.

Grid D

Four separate conductors are interpreted from the GENIE data from grid D, however the two most easterly conductors at about 29+50E and

31+25E are so weak that they can only be classified as inferred. The strongest anomalous response is due to a conductor with a very high interpreted conductance of 20-60 mhos at about 27+75E. This conductor has only a weak in-phase VLF-EM correlation, which implies that it is more likely due to a conductor of limited depth extent and strike length. The quadrature VLF-EM is very large and negative, indicating that the conductor is partially buried beneath conductive overburden. All other GENIE conductors have closely coincident VFL-EM anomalies implying that they are more likely caused by large conductive horizons possibly graphitic.

CONCLUSION AND RECOMMENDATIONS:

The horizontal loop EM survey of four selected grid areas on the Mass property using the GENIE reconnaissance electromagnetic system has successfully located a variety conductors ranging in depth from near surface to over 50 m, and ranging in conductivity-thickness product (conductance) from less than 5 mhos (Siemens) to over 50 mhos. Many of these conductors occur within wide conductive zones which have been interpreted to be due to shallow, multiple conductive horizons within generally conductive formations. In some areas, particularly at grid A, individual conductors are not entirely resolvable from the current data set, which was collected using 100 m coil separation. A follow-up survey with 50 m coil separation is required to make a more definitive interpretation.

Most of the conductors which could be clearly identified from the

GENIE data have coincident VLF-EM anomalies. This implies that the conductors are large structures with considerable strike length and depth extent. The most likely causes of such conductors are graphitic stratigraphic horizons. A few GENIE conductors have poor or no VLF-EM correlation and hence should receive highest priority for follow-up ground truth by trenching or drilling. These conductors are (in order of priority):

1) grid D, lines 10+00N to 12+00N, 27+75E

2) grid B, lines 10+00E and 11+00E, 18+00N

3) grid C, lines 13+00N and 14+00N, 17+50E (may require additional GENIE data to the west to confirm)

Where the conductor is interpreted to be at a depth of 5 m or less, an attempt should be made to expose the conductor by trenching. Deeper conductors should be drill tested using dip information from the GENIE profiles where available, or inferred geologic dips if not available, to control the drill location and direction. All other shallow conductors should be investigated by trenching if practical.

REFERENCES:

Doborzynski, Z., Rentsch, U., Rudniski, D., Brcic, I., LaFleche, P.: A novel geometry-invariant portable ground electromagnetic reconnaissance system; Technical Papers, Volume 1, Paper M1.2; 51st Annual Meeting of the Society of Exploration Geophysicists, Los Angeles, 1981.

Fraser, D.C.: Contouring of VLF-EM data; Geophysics, vol.34, no.6, pp.958-967, 1969.

Johnson, I.M. and Doborzynski, Z.B.: A novel ground electromagnetic system; Geophysics, vol.51, no.2, pp.396-409, 1986.

Paterson, N.R, and Ronka, V.: Five years of surveying with the very low frequency - electro magnetics method; Geoexploration, vol.9, pp. 7-26, 1971.

STATEMENT OF QUALIFICATIONS:

NAME: WOODS, Dennis V.

PROFESSION: Geophysical Engineer

EDUCATION:

B.Sc. Applied Geology,
Queen's University, 1973

M.Sc. Applied Geophysics,
Queen's University, 1975

Ph.D. Geophysics,
Australian National University, 1979

PROFESSIONAL ASSOCIATIONS:

Registered Professional Engineer, #15745
Province of British Columbia

Active Member,
Society of Exploration Geophysicist
Canadian Society of Exploration Geophysicist
Australian Society of Exploration Geophysicist

EXPERIENCE:

1971-79
- Field geologist with St. Joe Mineral Corp. and Selco Mining Corp. (summers)
- Research graduate student and teaching assistant at Queen's University and the Australian National University

1979-86
- Assistant Professor of Applied Geophysics at Queen's University
- Geophysical consultant with Paterson Grant & Watson Ltd., M.P.H. Consulting Ltd., James Neilson & Assoc. Ltd., and Foundex Geophysics Inc.
- Visiting research scientist at Chervon Geosciences Ltd., Geological Survey of Canada, and the University of Washington

1986-89
- Project Geophysicist with Inverse Theory & Applications (ITA) Inc.
- Chief Geophysicist at White Geophysical Inc.
- Chief Geophysicist at Premier Geophysics Inc

1990-
- President of Woods Geophysical Consulting

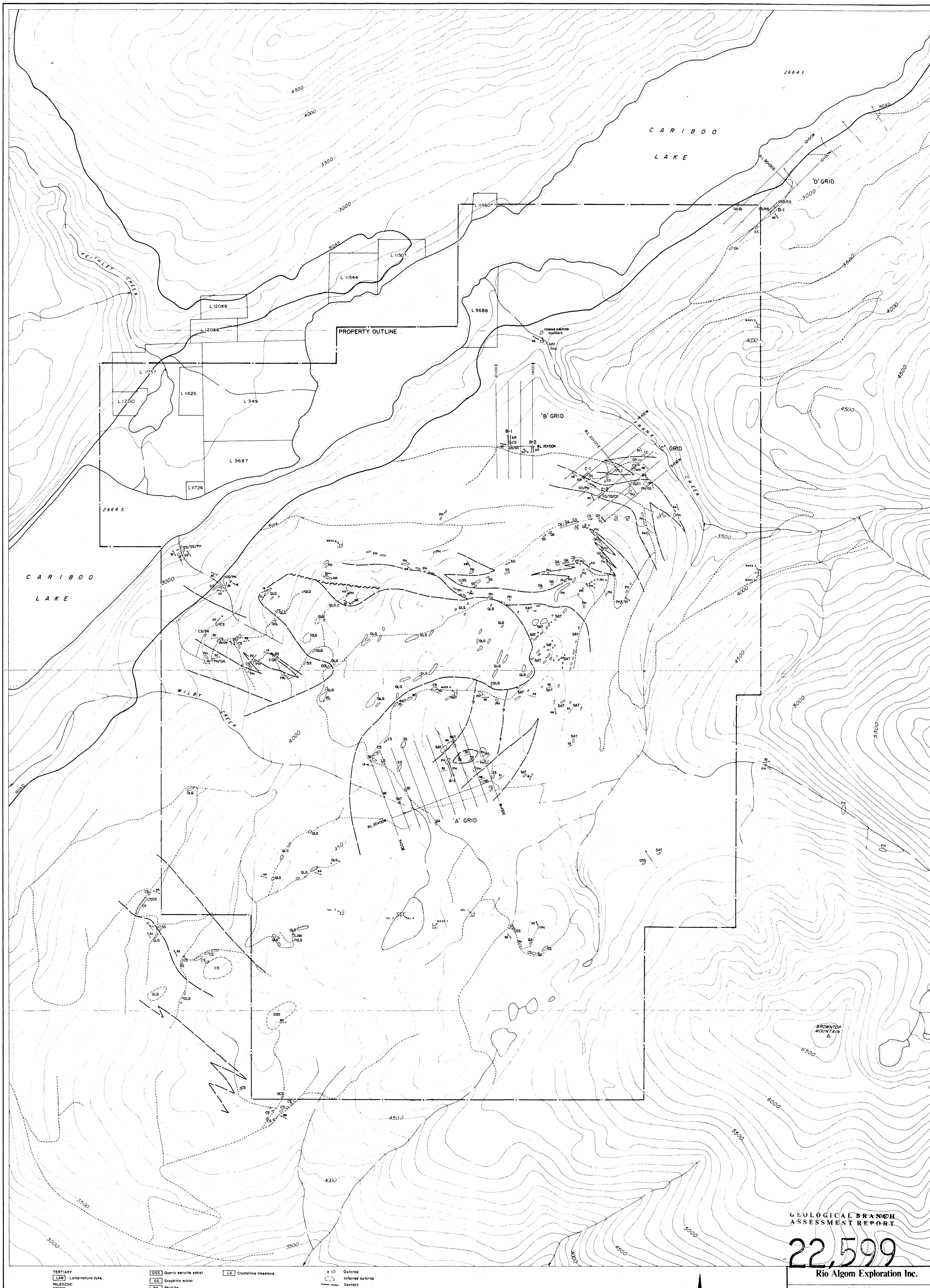
GENIE SPECIFICATIONS

Transmitter	
Transmitting Element	Iron-cored coil for each frequency
Transmitting Frequency Pairs	Five pairs. 112.5 Hz reference with one of 337.5, 1012.5 or 3037.5 Hz; or 337.5 Hz reference with one of 1012.5 or 3037.5 Hz.
Transmitting Moments	150 Am^2 at 112.5 Hz, 100 Am^2 at 337.5 Hz, 50 Am^2 at 1012.5 Hz, 25 Am^2 at 3037.5 Hz.
Relative Amplitude Stability	Better than 0.1%
Power Supply	Rechargeable Nickel-Cadmium batteries; 2 options available, Light and Heavy Duty.
Power Supply Endurance	Light duty pack: 2 hours continuous at 20°C. Heavy duty pack: 3½ hours continuous at 20°C.
Operating Temperature Range	-30°C to +50°C
Storage Temperature Range	-40°C to +50°C
Total Weight with Batteries	Light duty configuration: 14 kg Heavy duty configuration: 16 kg
Dimensions	Height: 820 mm; Width: 380 mm; Depth: 180 mm
Receiver	
Receiving Element	Iron-cored coil
Receiving Frequency Pairs	Same as transmitter
Transmitter-Receiver Separation	Primary selector: 6.26 m, 12.5 m, 25 m, 50 m, 100 m, 200 m plus Multiplier: x 1, x 1.25, x 1.5, x 1.75

Maximum Transmitter-Receiver Separation	200 m under most conditions. Greater separations may be possible depending on atmospheric and power line noise.
Power Line Filtering	Internally switch selectable at 60 or 50 Hz and 3rd harmonic.
Signal Averaging Time	Switch selectable at 2, 4, 8 or 16 seconds.
Resolution of Ratio Display	0.1%
Power Supply	Rechargeable Nickel-Cadmium batteries
Power Supply Endurance	20 hours continuous at 20°C
Operating Temperature Range	-30°C to +50°C
Storage Temperature Range	-40°C to +50°C
Total Weight	6 kg
Console Dimensions	Length: 300 mm; Height: 230 mm; Depth: 160 mm
Coil Dimensions	Length: 500 mm; Diameter: 45 mm
Battery Charger	
Power Requirements	115 V or 230 V, 50 Hz or 60 Hz, 50 VA
Charging Time	7 hours for completely discharged batteries, subsequent automatic trickle charging. Transmitter and receiver batteries can be charged simultaneously.
Weight	4.5 kg
Dimensions	Length: 290 mm; Height: 150 mm; Depth: 130 mm

EM16 SPECIFICATIONS

MEASURED QUANTITY	In-phase and quad-phase components of vertical magnetic field as a percentage of horizontal primary field. (i.e. tangent of the tilt angle and ellipticity).
SENSITIVITY	In-phase :±150% Quad-phase :± 40%
RESOLUTION	±1%
OUTPUT	Nulling by audio tone. In-phase indication from mechanical inclinometer and quad-phase from a graduated dial.
OPERATING FREQUENCY	15-25 kHz VLF Radio Band. Station selection done by means of plug-in units.
OPERATOR CONTROLS	On/Off switch, battery test push button, station selector switch, audio volume control, quadrature dial, inclinometer.
POWER SUPPLY	6 disposable 'AA' cells.
DIMENSIONS	42 x 14 x 9cm
WEIGHT	Instrument: 1.6 kg Shipping : 4.5 kg



TERTIARY

LAM	Lamprophyre dyke

PALEOZOIC

QLG	Quesnel Lake Gneiss

Snowshoe Group
Harveys Ridge Succession

SAT	Sericite-albite-talc schist
SS	Sericite schist
CS	Chloritic schist
QCS	Quartz chlorite schist
QSS	Quartz sericite schist
GS	Graphitic schist
PH	Phyllite
AR	Argillite
QA	Quartz arenite
AK	Arkose
GT	Grit
LC	Lithic conglomerate
DOL	Dolomite
LS	Crystalline limestone

- Outcrop
- Inferred outcrop
- Contact
- Fault
- Bedding - strike, dip
- Foliation - " "
- Lineation - azimuth, plunge
- Trench
- Adit
- Legal corner post or initial post

SCALE 1:10,000

0 100 200 400 800 METRES

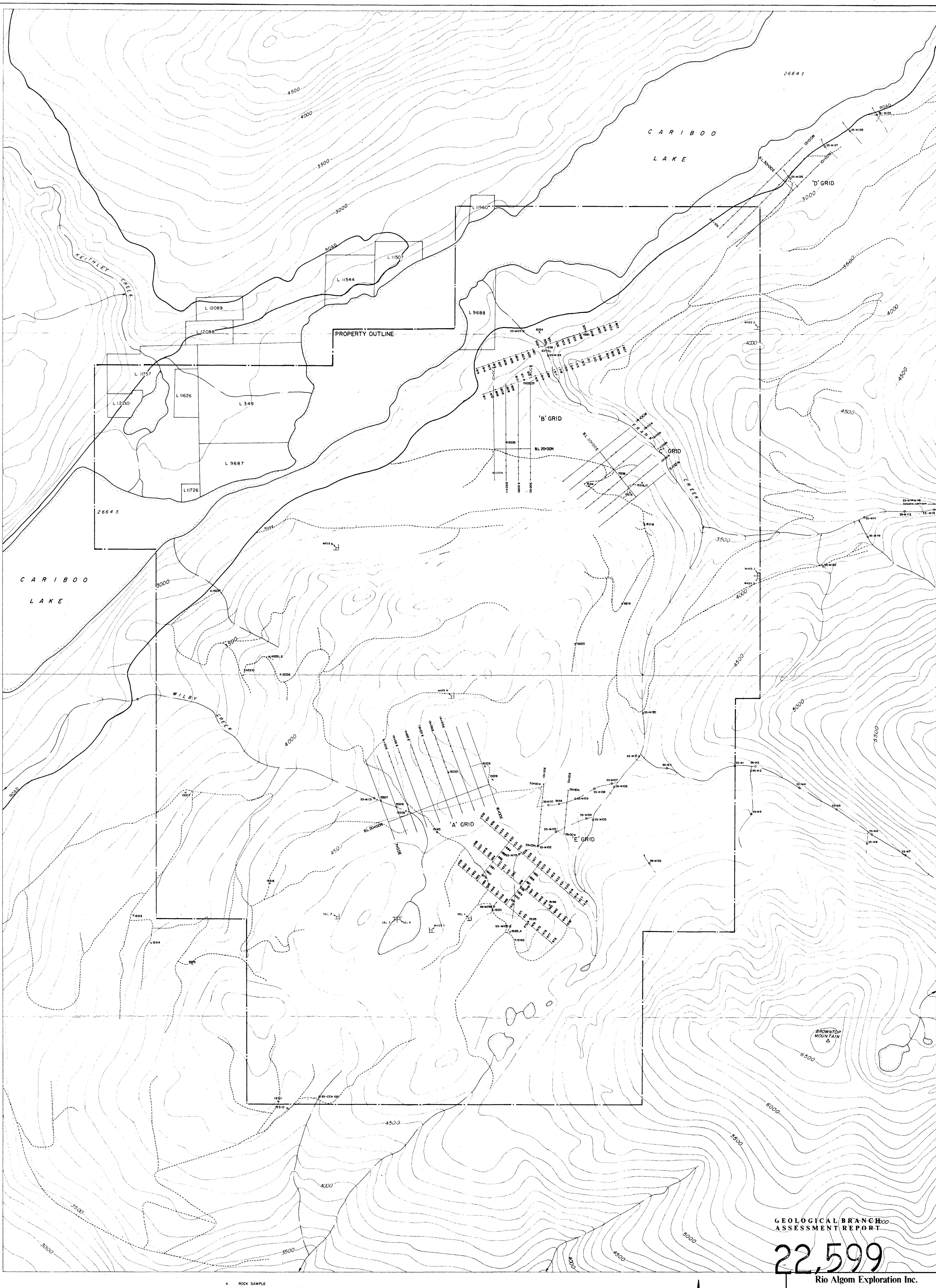
Rio Algom Exploration Inc.

MASS PROPERTY

GEOLOGY

NTS 93A-11,14 — CARIBOO M.D., B.C.

DATE	DRAWN BY	DWG.
OCT. 1992	W.S.D. / Chong	8



GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,599

x ROCK SAMPLE

o SILT SAMPLE

SOIL SAMPLE (Prefix SO-MXXX ; 300, 600, 800 series)

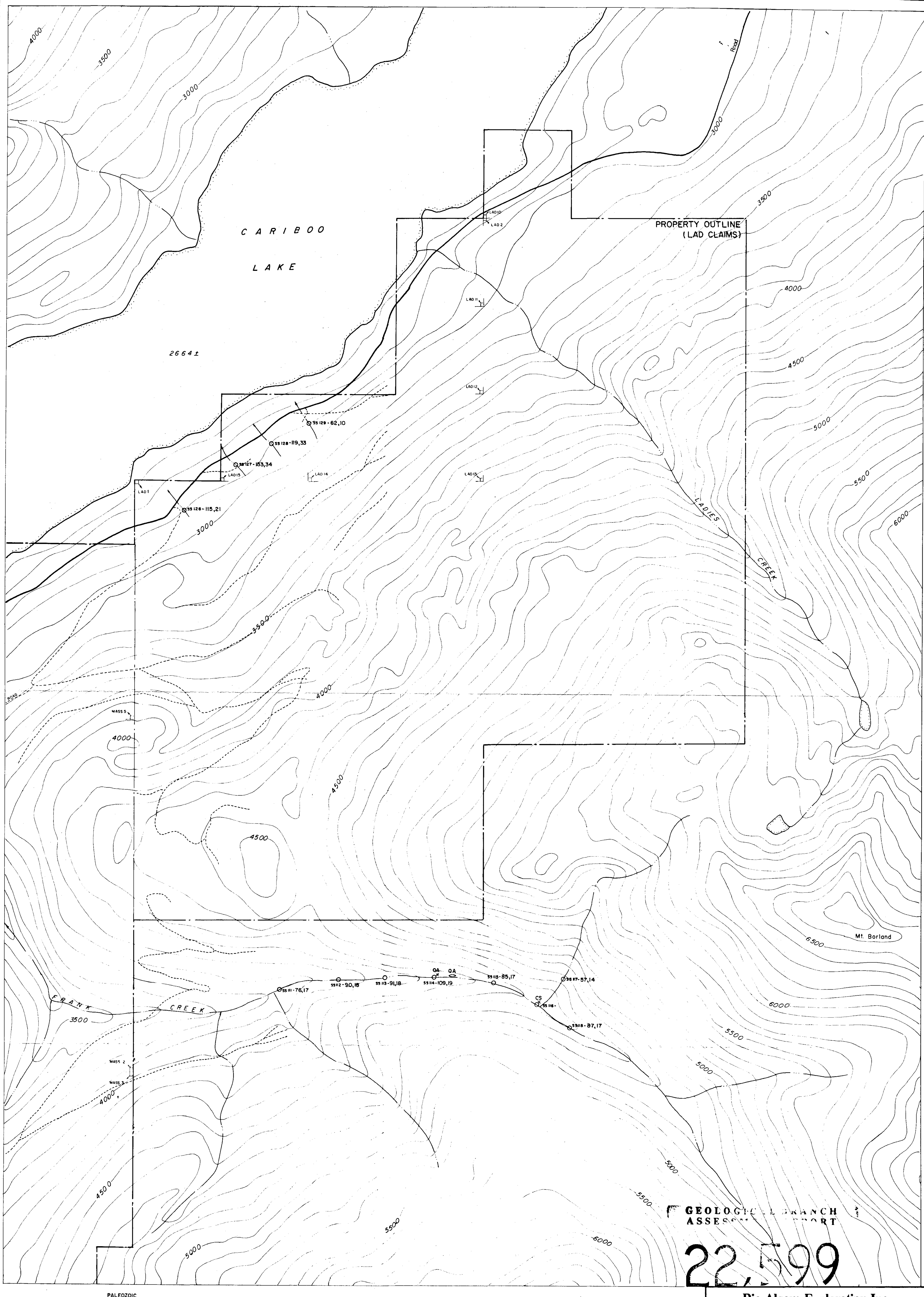
N

SCALE 1:10,000

0 100 200 400 800 METRES

Rio Algom Exploration Inc.		
MASS PROPERTY		
SAMPLE NUMBER MAP		
NTS 93A-11,14		CARIBOO M.D., B.C.
DATE OCT. 1992	DRAWN BY W.S.D. / Chong	DWG. 9


CARIBOO LAKE
KEITHLEY CREEK
ROAD
L 11960
L 11507
L 11544
L 12089
L 12088
L 9688
PROPERTY OUTLINE
L 11757
L 11626
L 12240
L 349
L 9687
L 11726
'B' GRID
'C' GRID
'D' GRID
FRANK CREEK
CARIBOO LAKE
WILBY CREEK
'A' GRID
'E' GRID
BROWNTOP MOUNTAIN
ROCK SAMPLE
SILT SAMPLE
SOIL SAMPLE (Prefix 50-MXXX; 300, 600, 800 series)
104,14 ZINC, LEAD IN PPM
SCALE 1:10,000
0 100 200 400 800 METRES
GEOLOGICAL BRANCH ASSESSMENT REPORT
22,599
Rio Algom Exploration Inc.
MASS PROPERTY
ZINC and LEAD in ppm
NTS 93A-11,14
CARIBOO M.D., B.C.
DATE OCT. 1992
DRAWN BY W.S.D. / Chong
DWG. 10



PALEOZOIC
Snowshoe Group
Harveys Ridge Succession

CS	Chloritic schist
QA	Quartz arenite
x ⬭	Outcrop
	Legal corner post or initial post
O SS114-109,19	Silt sample location (prefix SS-M92-XXX) sample Nº. - Zn ppm, Pb ppm

N

SCALE 1:10,000

0 100 200 400 800 METRES

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,599

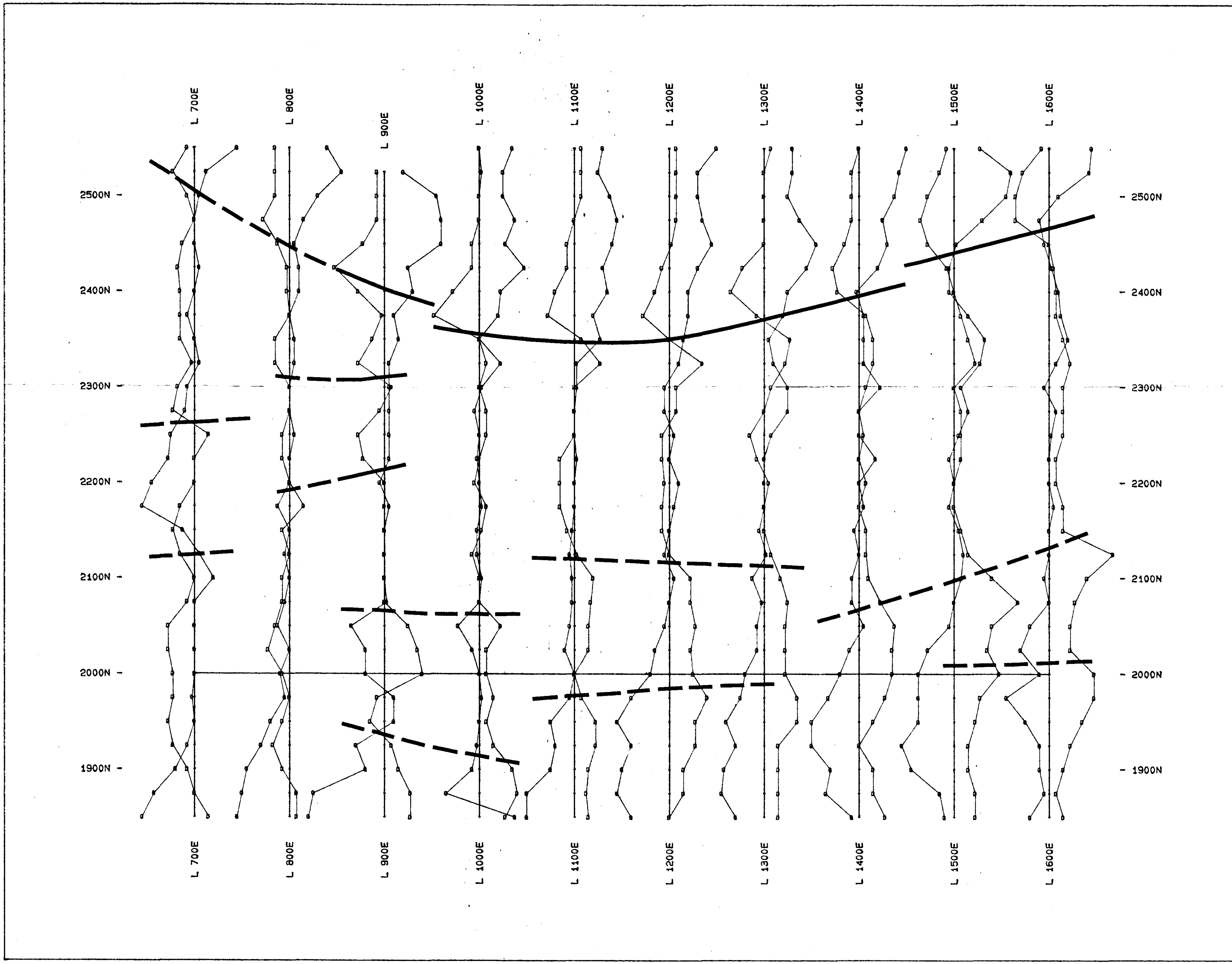
Rio Algom Exploration Inc.

MASS PROPERTY

LAD CLAIMS
GEOLOGY and SILT GEOCHEMISTRY

NTS 93A - 11,14 — CARIBOO M.D., B.C.

DATE	DRAWN BY	DWG.
OCT 1992	W.S.D. / Chong	11



GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,599

RIO ALGOM EXPLORATION INC.

MASS PROPERTY - "A" GRID
VLF-EM SURVEY - PROFILES

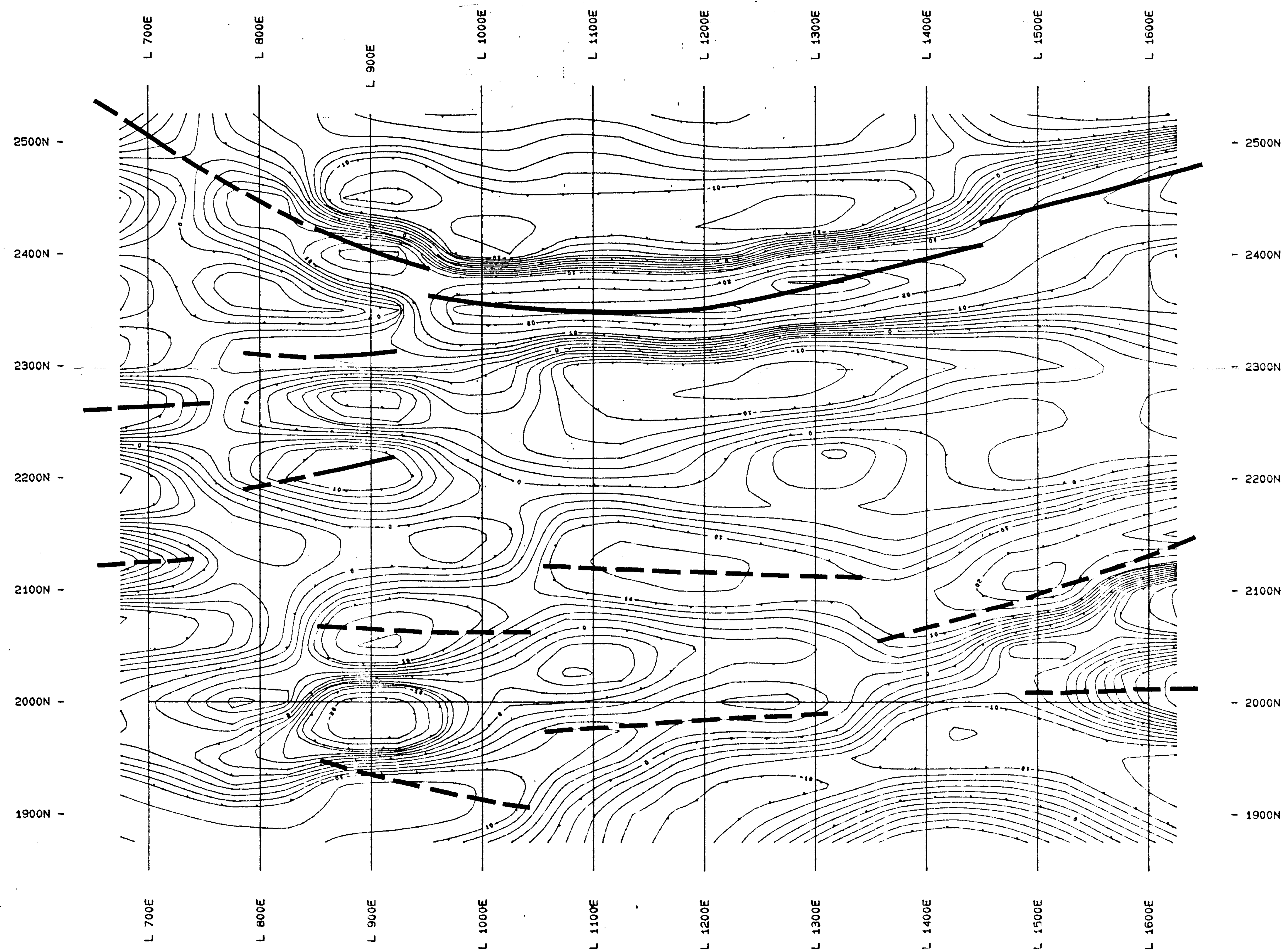
D: Dip Angle, Q: Quadrature (10%/cm)

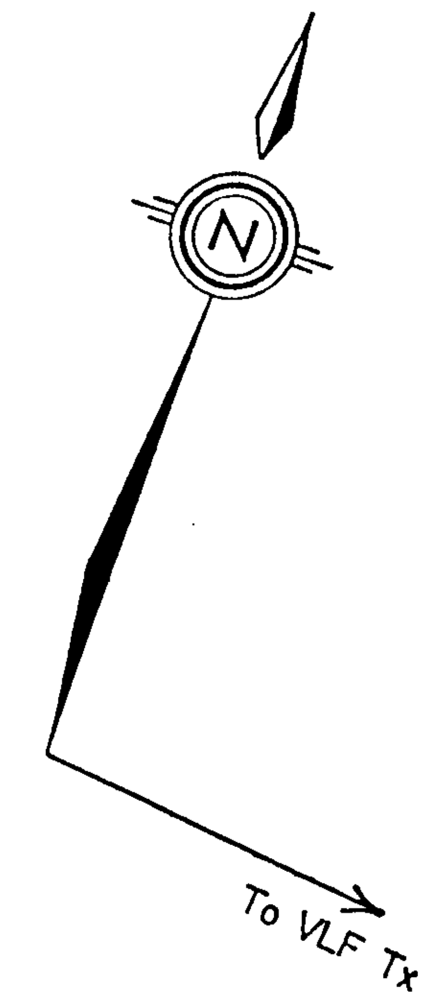
Scale 1: 2500.0

0 50 100 150 200 250 M

Date: Aug 1992	Survey: May 1992	Map: A1

WOODS GEOPHYSICAL CONSULTING





Interpreted Conductor

Inferred Conductor

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,599

RIO ALGOM EXPLORATION INC.

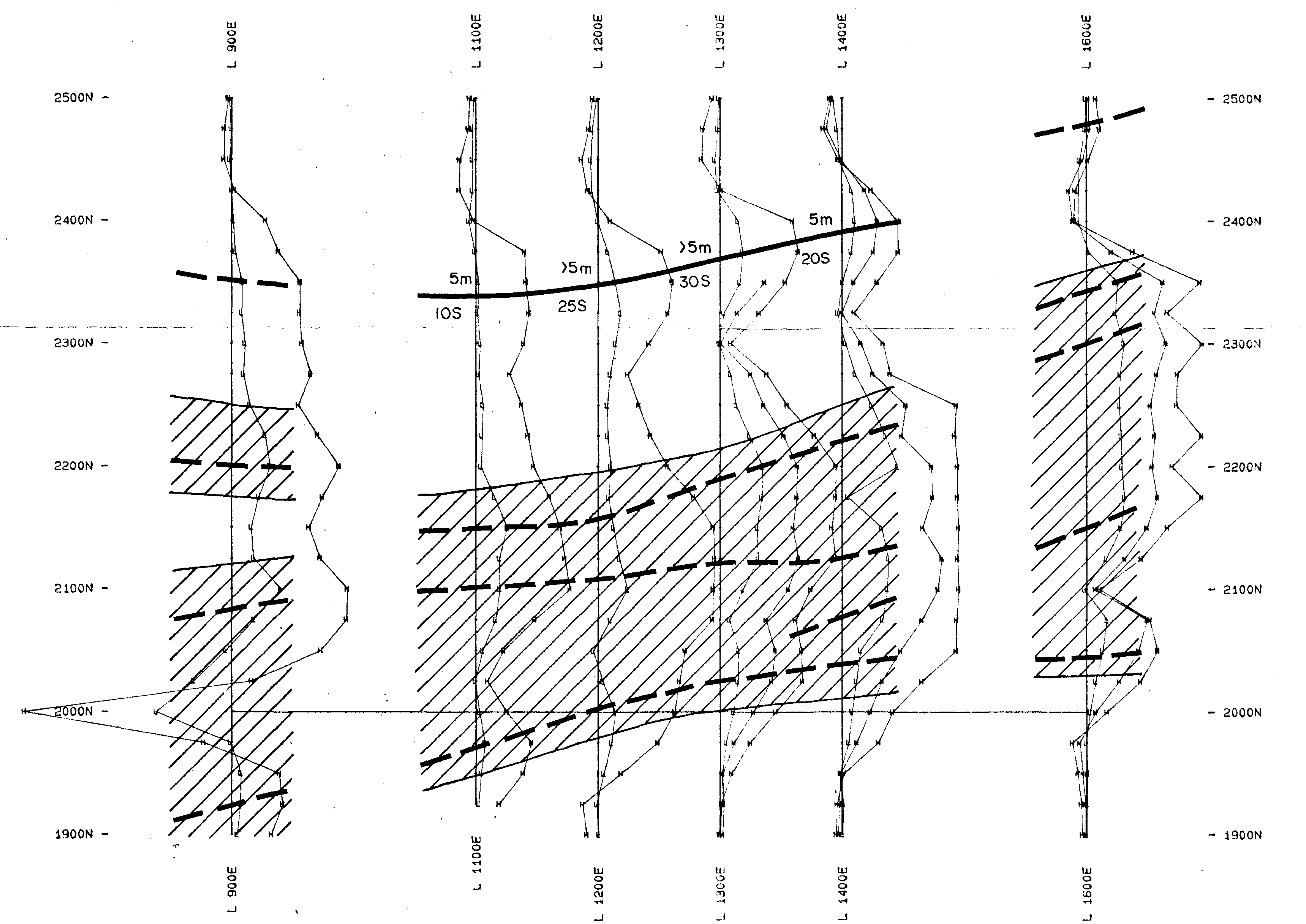
MASS PROPERTY - "A" GRID
VLF-EM SURVEY - CONTOURS
FRASER FILTERED IN-PHASE

Scale 1: 2500.0

0 50 100 150 200 250 M

Date: Aug 1992	Survey: May 1992	Map: A2

WOODS GEOPHYSICAL CONSULTING



GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,599

Interpreted Conductor

Inferred Conductor

Conductive Zone
(Multiple Conductors and/or Conductive Overburden)

RIO ALGOM EXPLORATION INC.

MASS PROPERTY - "A" GRID
GENIE EM SURVEY - PROFILES

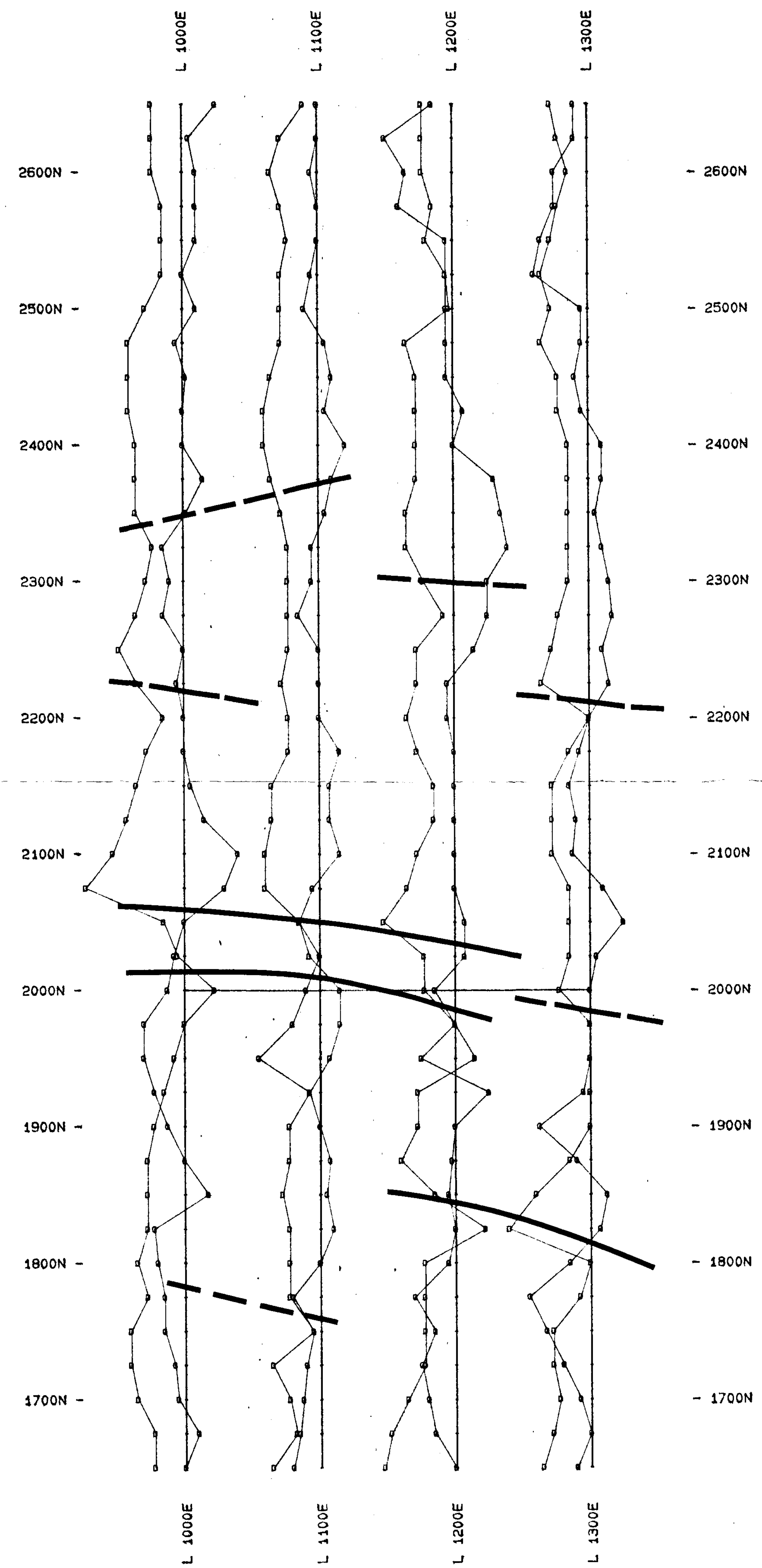
L: 337 Hz, M: 1012 Hz, H: 3037 Hz (25%/cm)

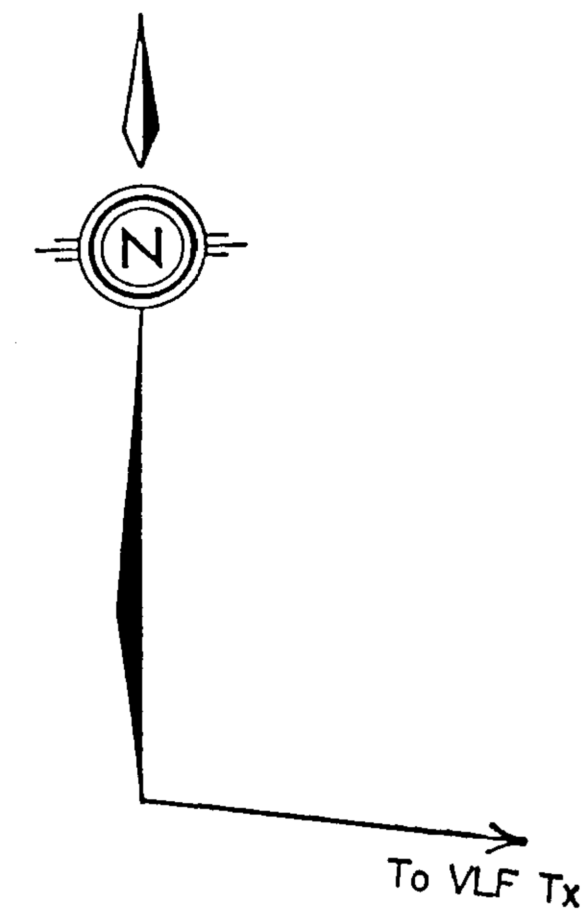
Scale 1: 2500.0

0 50 100 150 200 250 M

Date: Aug 1992	Survey: June 1992	Map: A3

WOODS GEOPHYSICAL CONSULTING





Interpreted Conductor ———

Inferred Conductor — — —

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,599

RIO ALGOM EXPLORATION INC.

MASS PROPERTY - "B" GRID
VLF-EM SURVEY - PROFILES

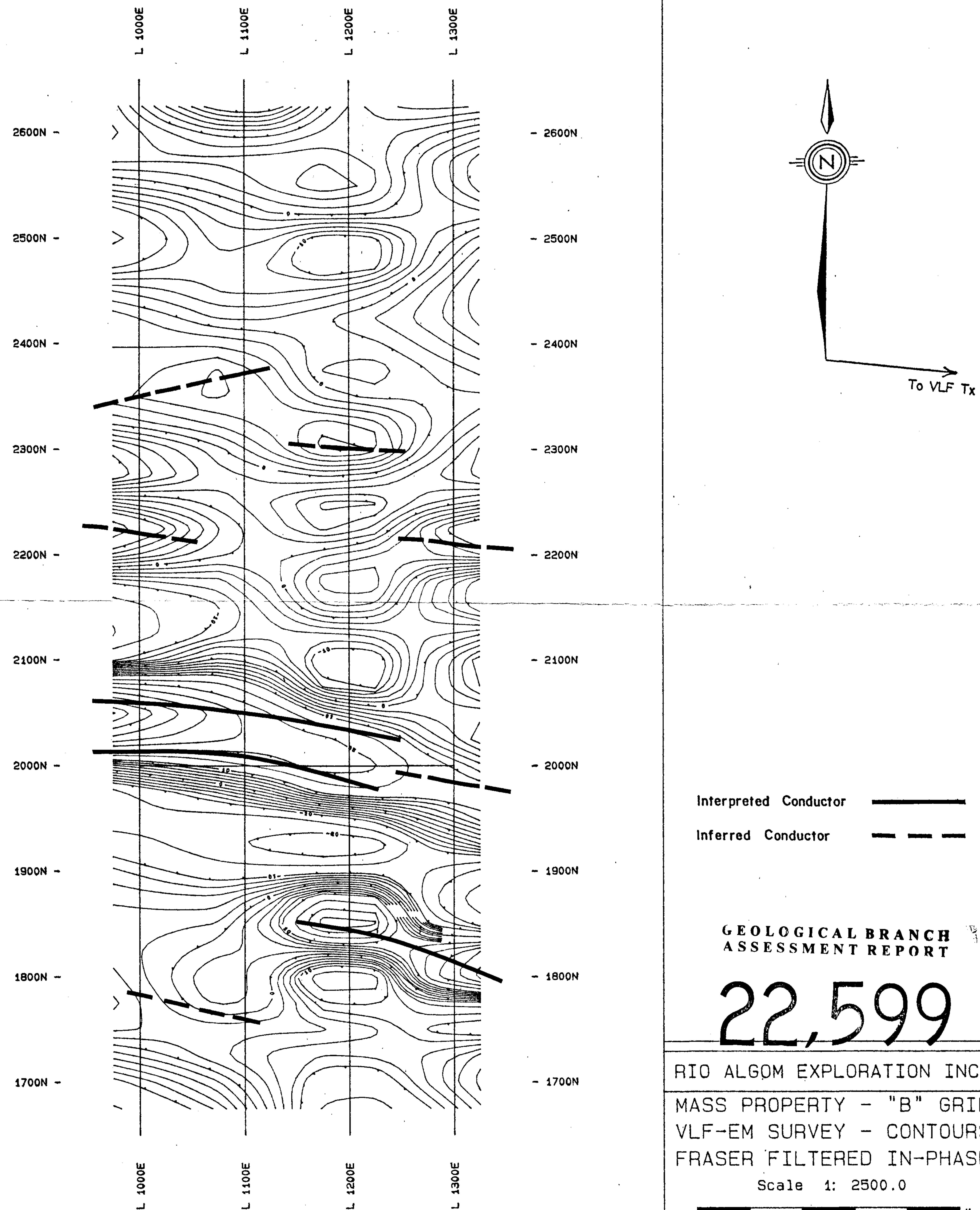
D: Dip Angle, Q: Quadrature (10%/cm)

Scale 1: 2500.0

0 50 100 150 200 250 M

Date: Aug 1992	Survey: May 1992	Map: B1

WOODS GEOPHYSICAL CONSULTING



Interpreted Conductor

Inferred Conductor

GEOLOGICAL BRANCH ASSESSMENT REPORT

22,599

RIO ALGOM EXPLORATION INC.

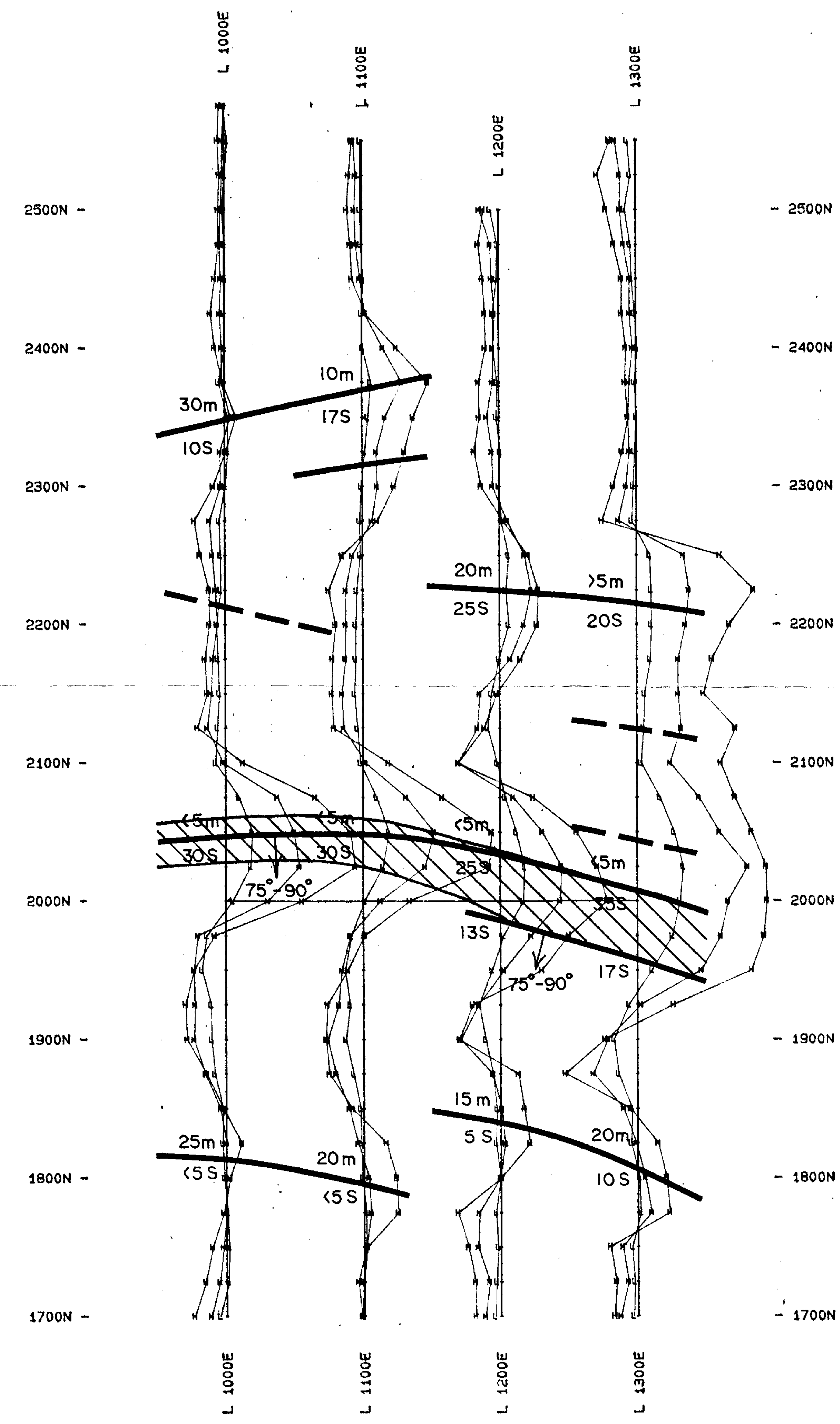
MASS PROPERTY - "B" GRID
VLF-EM SURVEY - CONTOURS
FRASER FILTERED IN-PHASE

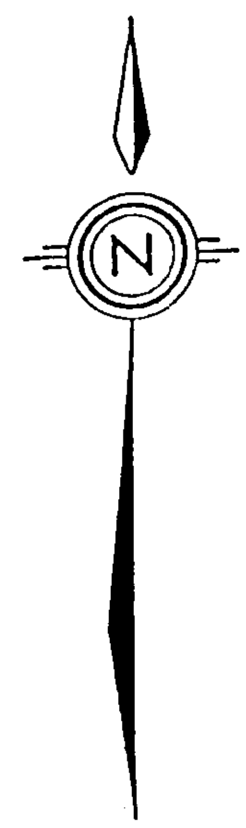
Scale 1: 2500.0

0 50 100 150 200 250 M

Date: Aug 1992	Survey: May 1992	Map: 82

WOODS GEOPHYSICAL CONSULTING





GEOLOGICAL BRANCH ASSESSMENT REPORT

22,599

Interpreted Conductor	(solid line)
Inferred Conductor	(dashed line)
Conductive Zone (Multiple Conductors and/or Conductive Overburden)	(hatched)

RIO ALGOM EXPLORATION INC.

MASS PROPERTY - "B" GRID
GENIE EM SURVEY - PROFILES

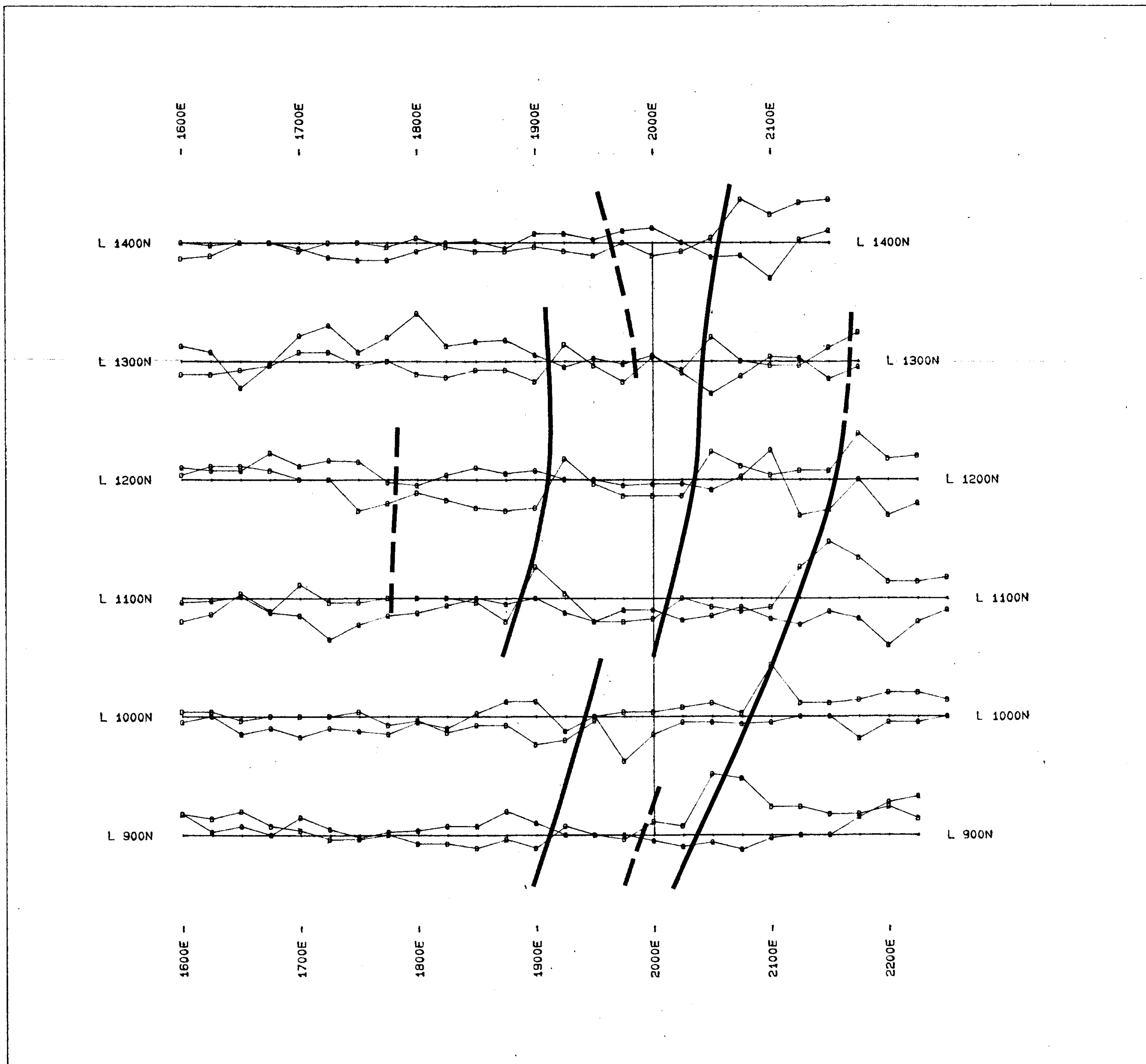
L: 337 Hz, M: 1012 Hz, H: 3037 Hz (25%/cm)

Scale 1: 2500.0

0 50 100 150 200 250 M

Date: Aug 1992	Survey: June 1992	Map: B3

WOODS GEOPHYSICAL CONSULTING



GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,599

RIO ALGOM EXPLORATION INC.

MASS PROPERTY - "C" GRID
VLF-EM SURVEY - PROFILES

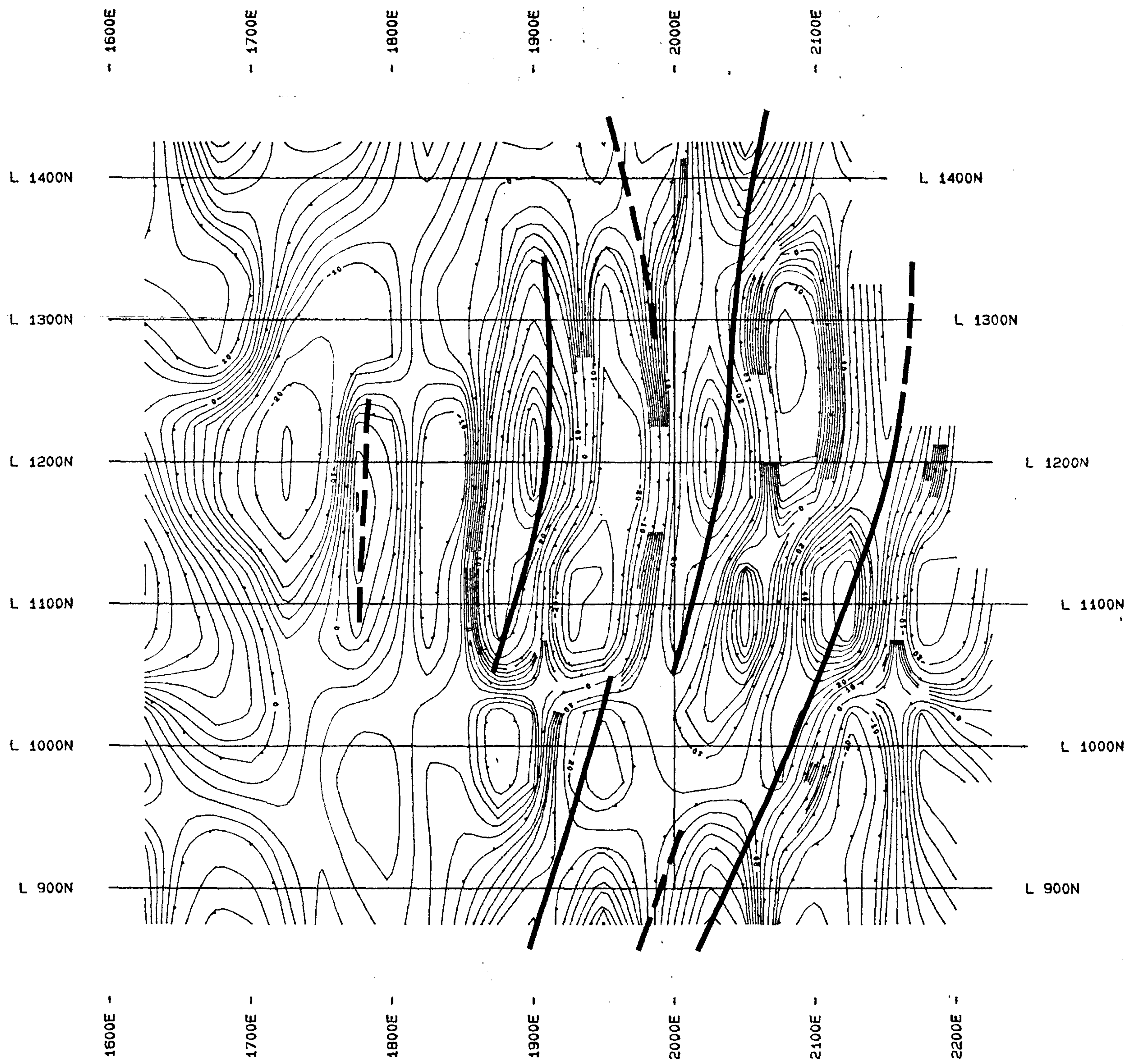
D: Dip Angle, Q: Quadrature (20%/cm)

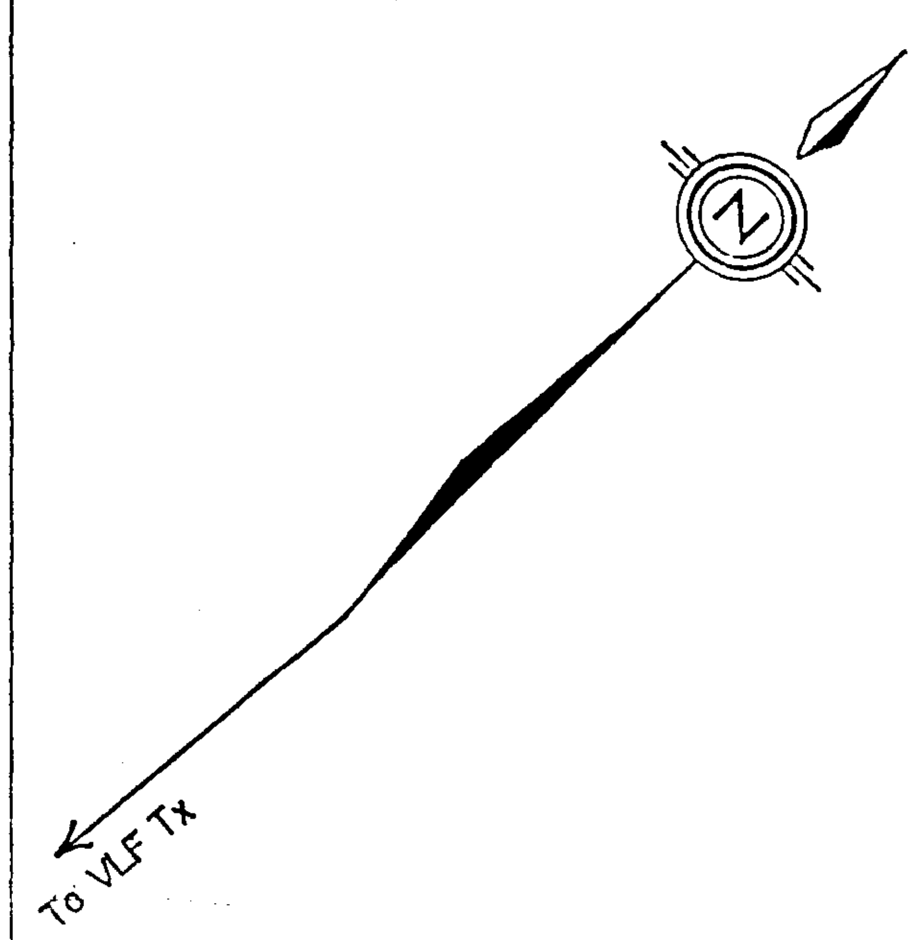
Scale 1: 2500.0

0 50 100 150 200 250 M

Date: Aug 1992	Survey: May 1992	Map: C1

WOODS GEOPHYSICAL CONSULTING





Interpreted Conductor

Inferred Conductor

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,599

RIO ALGOM EXPLORATION INC.

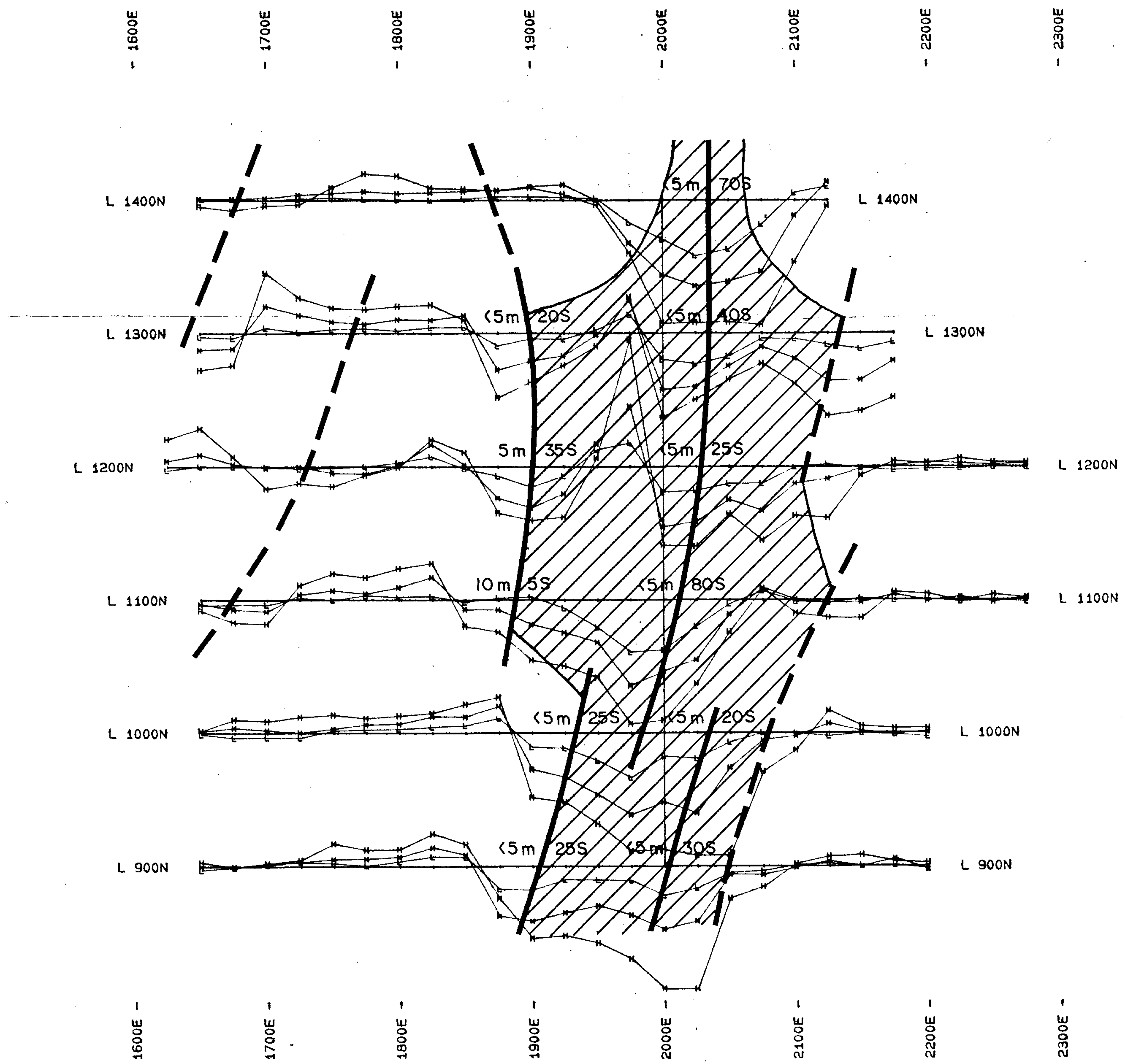
MASS PROPERTY - "C" GRID
VLF-EM SURVEY - CONTOURS
FRASER FILTERED IN-PHASE

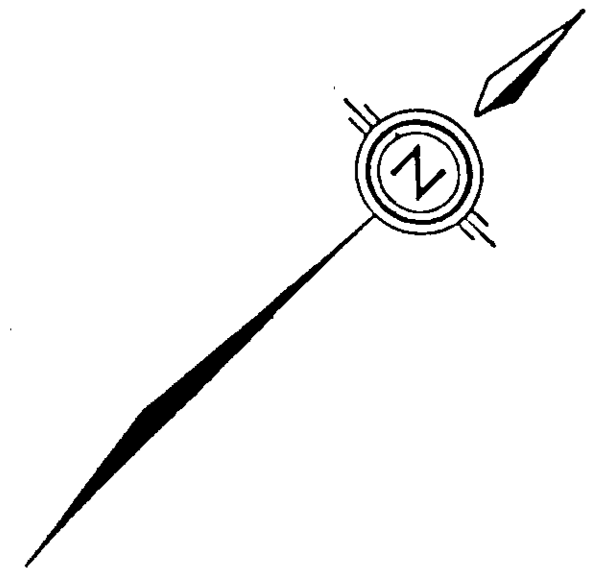
Scale 1: 2500.0

0 50 100 150 200 250 M

Date: Aug 1992	Survey: May 1992	Map: C2

WOODS GEOPHYSICAL CONSULTING





GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,599

Interpreted Conductor

Inferred Conductor

Conductive Zone
(Multiple Conductors
and/or Conductive
Overburden)

RIO ALGOM EXPLORATION INC.

MASS PROPERTY - "C" GRID
GENIE EM SURVEY - PROFILES

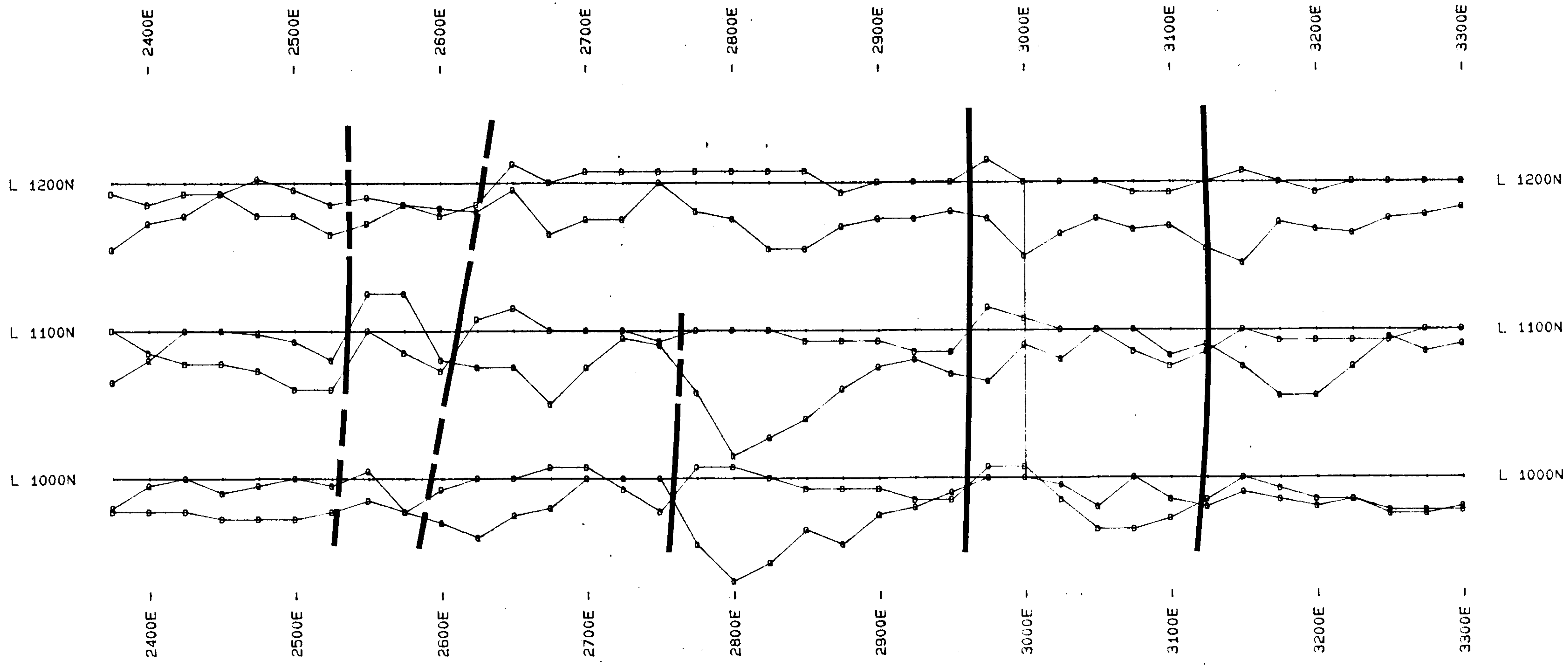
L: 337 Hz, M: 1012 Hz, H: 3037 Hz (25%/cm)

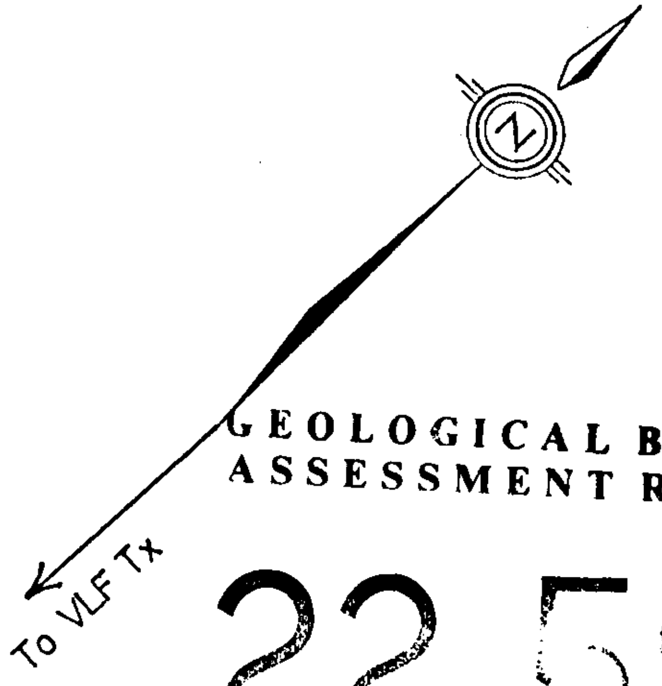
Scale 1: 2500.0

0 50 100 150 200 250 M

Date: Aug 1992	Survey: June 1992	Map: C3

WOODS GEOPHYSICAL CONSULTING





GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,599

Interpreted Conductor ———

Inferred Conductor – – –

RIO ALGOM EXPLORATION INC.

MASS PROPERTY - "D" GRID

VLF-EM SURVEY - PROFILES

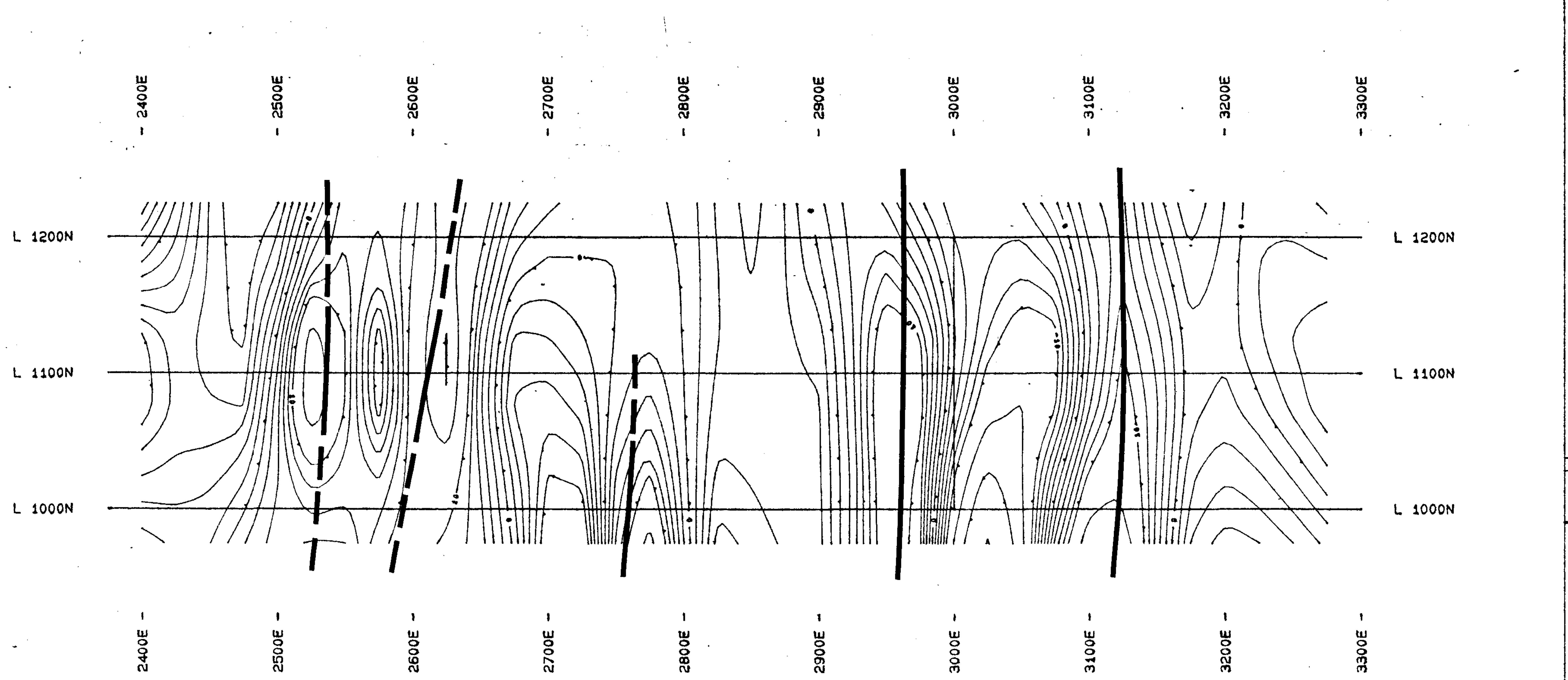
D: Dip Angle, Q: Quadrature (10%/cm)

Scale 1: 2500.0

0 50 100 150 200 250 M

Date: Aug 1992	Survey: May 1992	Map: 01

WOODS GEOPHYSICAL CONSULTING



GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,599

Interpreted Conductor

Inferred Conductor

RIO ALGOM EXPLORATION INC.

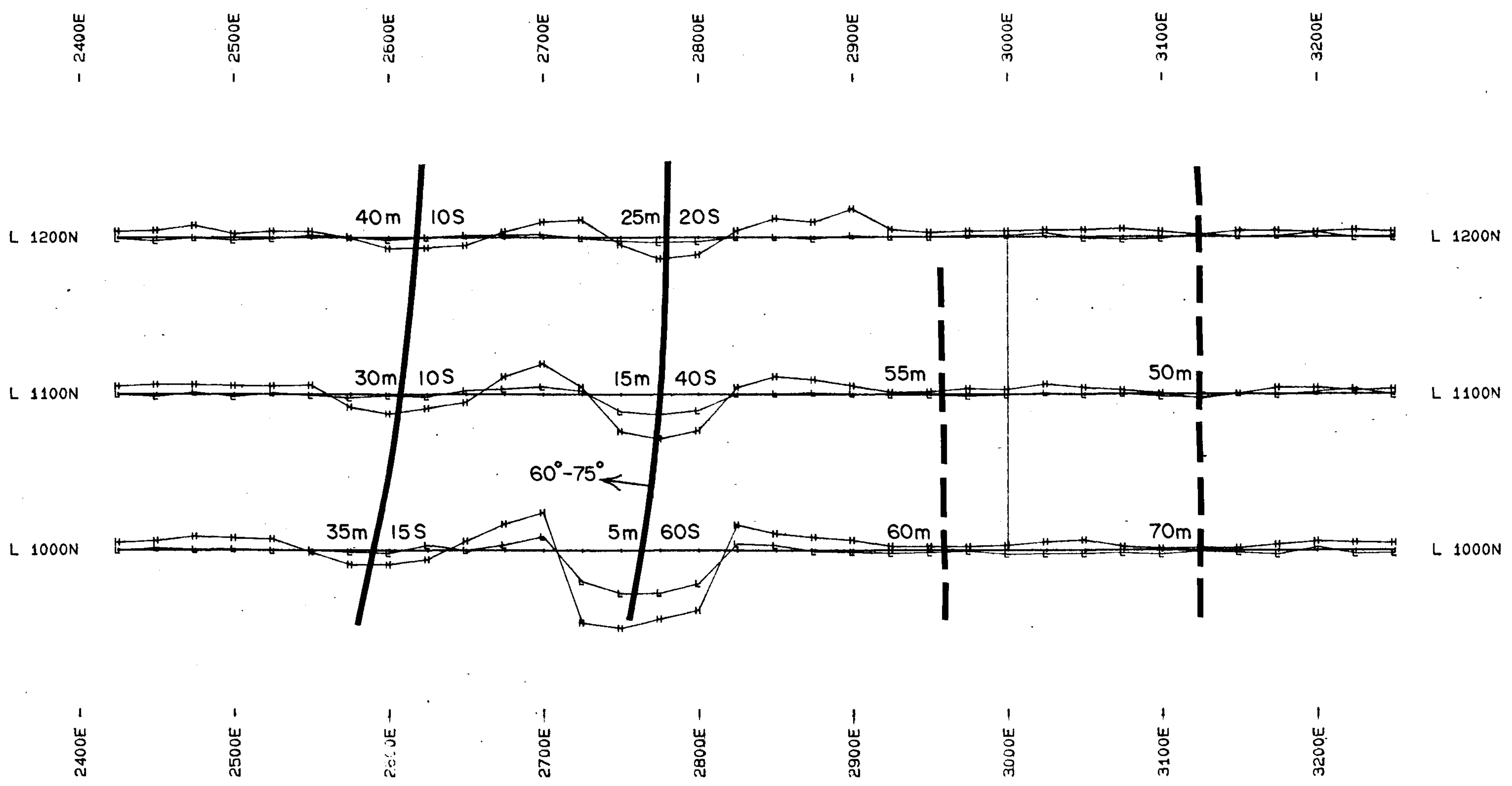
MASS PROPERTY - "D" GRID
VLF-EM SURVEY - CONTOURS
FRASER FILTERED IN-PHASE

Scale 1: 2500.0

0 50 100 150 200 250 M

Date: Aug 1992	Survey: May 1992	Map: D2

WOODS GEOPHYSICAL CONSULTING



GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,599

Interpreted Conductor ———

Inferred Conductor — — —

RIO ALGOM EXPLORATION INC.

MASS PROPERTY - "D" GRID
GENIE EM SURVEY - PROFILES

L: 337 Hz, M: 1012 Hz, H: 3037 Hz (25%/cm)

Scale 1: 2500.0

0 50 100 150 200 250 M

Date: Aug 1992	Survey: June 1992	Map: D3

WOODS GEOPHYSICAL CONSULTING